

COMMERCIAL CAR JOURNAL

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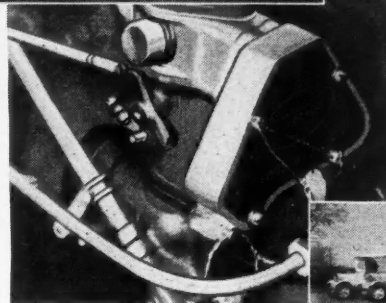
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BY J. J. GIBSON, PRESIDENT

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THE PRESIDENT'S PAGE

The Truck Dealer—The
Important Trade Unit

By

President
Chilton Class Journal Co.

ALTHOUGH the trade in general has always had a reasonably fair conception of the importance of the dealer, it was not until confronted with the great problems arising from business depression that the trade unit advantages became undeniably evident.

Present conditions, therefore, have emphasized the admirable qualities of the dealer who is being recognized today as never before, and who is being considered—so to speak—as the keystone of the arch of sales and service.

There is no satisfactory substitute for the trade unit in times of stress or—in fact—in periods of plenty; and there is nothing more helpful in future programs than the realization that in the search for outlets to care for large productive capacity the trail will invariably lead to the doors of the dealer establishment.

Those manufacturers who sought those portals during prosperous times have found them to be sanctuaries during lean years, for by no other means than the trade unit can the manufacturer make economical and satisfactory contacts with the farmer, the neighborhood store and practically all types of buyers of individual trucks, and it is these buyers who



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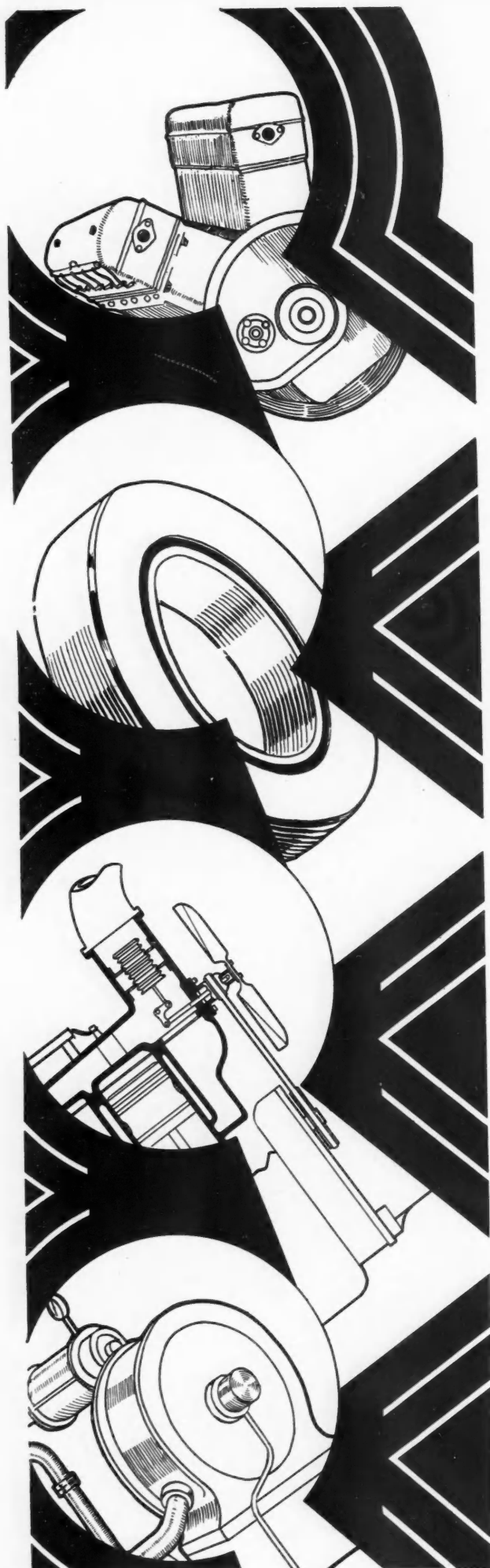
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VOL. XLII, No. 2

use 80 per cent of the trucks purchased.

Naturally, as greater recognition is accorded the dealer, the greater becomes his responsibility and he is required to give evidence of his ability to properly represent the manufacturer and service the user. Not the least among the many qualities he must possess is promptness in accepting and mastering the problems which new ideas are continually developing in truck transportation and to apply these new ideas intelligently for the benefit of truck users.

New eras bring with them new competitive posers, and the present business depression has brought many and taught severe lessons. That which has been learned should be applied constructively now and in the next business cycle, and since the greatest lesson has been the potent value of the trade unit, manufacturers will anticipate the future by building organizations of dealers who will be their battering-rams in prosperity and their props in adversity.

Never before in the history of the commercial car industry has the need been so great for a cooperative manufacturer-dealer spirit, and at no time has it been more evident that those who prosper most will be those who believe most—in each other.



SCENES DOWN THE

ALONG about 1914, before the start of the World War, when engineers had achieved the noteworthy feat of putting front doors on touring cars and electric starters on engines, many persons in the automotive industry thought that the limit of development had been reached. They were wrong, of course, and so have been others since that time who have presumed to limit or define the advancement of design of motor vehicles.

With full knowledge of the pitfalls in the way of predictors we here reveal some pet projects of designing engineers. Some ideas are just around the corner ready to be presented at any time, others have not been perfected. All of them are beyond the rumor stage and are in the hands of men with authority. We shall stroll down the corridor and take a few peeks.

More Twelves

A 12-cylinder V-type truck engine developing about 240 hp. is described in this issue. The American-LaFrance Co. is only a few jumps ahead of other makers of 12-cylinder engines, according to several accounts. A beautifully finished marine engine attracted many favorable comments at the Motor Boat Show early this year. It is a V-12 of about 300 hp. By changing a few parts and putting on a bell housing it can be transformed into a truck engine, in fact it was designed with truck service in mind. Sixteen-cylinder jobs turning out 400 to 500 hp. are surely coming, in the opinion of one engineer, unless legislation puts a stop to high-speed intercity highway freight service.

Sealed Bearings

Sealed anti-friction bearings which will be lubricated during assembly and not thereafter are about to solve a lot of transmission and rear axle troubles if eyes and ears do not deceive. Refiners have produced lubricants which will withstand the extreme tooth pressures mentioned by A. Scaife, field engineer of White Co., in the article in the June issue. But, a considerable but, in fact, these lubricants are poison to anti-friction bearings. Like Jack Spratt and his wife of nursery rhyme fame, what is good for gears is sure death to bearings, and a suitable bearing lubricant is very uncomfortable in a heavy-duty rear axle. Instead of a compromise in makeup of the lubricant, engineers propose to seal lubricants in the bearings and let the refiners do their worst, in concocting transmission and rear axle lubricants.

Idle Fans

Cooling fans have large appetites for power, as several engineers recently pointed out. More than one engineer is speculating about means to run the fan only when needed and thus save 10 or 15 hp. for driving the truck. Obviously a cooling system which will maintain a cooling water temperature of 180 deg. with outside air at 100 deg. is overcooling whenever air temperatures are below 100 deg. By

BEHIND THE DOORS ENGINEERS' CORRIDOR

rigging up a thermostat to control a clutch on the fan the warming-up time of an engine can be reduced, best operating temperature of the engine maintained and power saved. Engineers are working upon some very interesting devices to attain these advantages.

Gas Turbine

The idea of getting a piston up to a speed of 60 m.p.h., stopping it, then bringing it up to speed again, all at the rate of two or three thousand times a minute, is unscientific, illogical, wasteful and unnecessary, according to some engineers. They are attracted by the idea of a gas turbine with parts revolving at high speed instead of reciprocating. Steam turbines "revolving" ten or fifteen or twenty thousand "revs" per minute live to a ripe old age. Why not build a gas turbine winding at the same speed, lighter, smaller, more compact? Why?

Finding materials which will stand up under continuous heat of combustion of gasoline and building an efficient rotary compressor are the two little stumbling blocks in the way of a successful gas turbine. A powerplant of this type is now being tested in Europe; details of construction are not being forced upon unwilling listeners, by any means. This development will be watched with keen interest.

Home Made Fuel

Many electric power companies are fond of electric trucks because they can produce the vehicle power during their generating station's off-peak periods. Gas companies may enjoy the same privilege by compressing illuminating gas into cylinders and carrying the gas on trucks instead of gasoline. Recent tests abroad indicate that gas fuel for 100 miles travel may be carried without too much bulk.

"Compression" Breaking

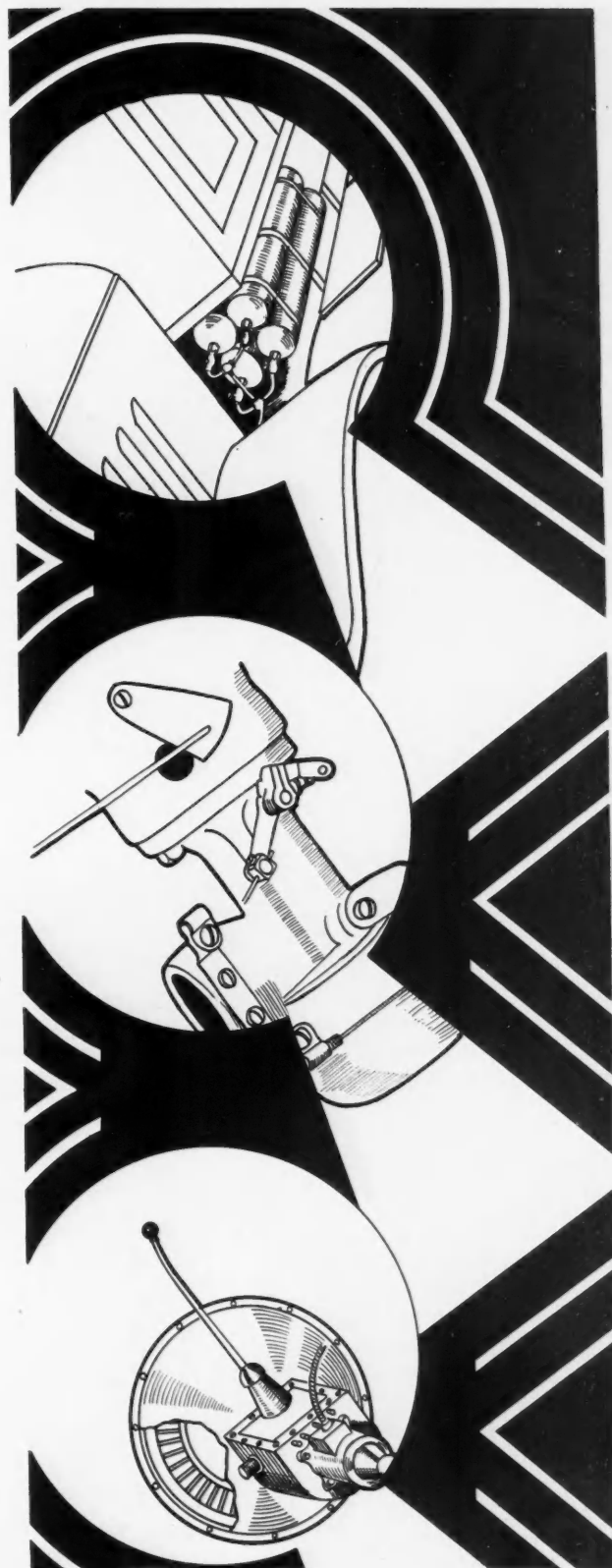
Free wheeling has put braking effort of engines in the spotlight. Stopping distances with and without the engine clutched to the drive line are compared, brake wear saved by going down hill in gear estimated.

That engine braking effort is due to engine compression is frequently assumed. A bit disconcerting therefore is the knowledge that there is no compression, as the term is usually employed, in an engine with the throttle closed being pulled around at high speed by momentum of the truck. Equally surprising is the fact that no motor vehicles on our market are equipped to make full use of engine compression as a brake.

A large air inlet above the carburetor would enable the engine to draw in cold air and work this air through the engine cycles. This would reduce the high vacuum existing on inlet strokes while engines are being pulled over by propeller shafts, one cause of oil pumping under these conditions. Air inlets have been fitted to truck intake systems;

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The Commercial Car Journal



October, 1931

FLEET service is profitable business for dealer or factory branch, but requires specialized application to attain. Unlike the ordinary run of customer the fleet operator is more exacting. He doesn't want his truck tied up in the shop; he wants work done when he wants it, and he wants it done how he wants it. To meet these needs dealers and branches must not only be fleet-minded but be fully prepared in every department of service.

That fleet business is well worth all the time and effort spent to acquire it is quite obvious when it is remembered that while sale of a new truck listing for \$5,000 to a fleet operator may bring the dealer a profit of \$500, the servicing of that truck, which costs the operator \$4,000 each year to operate, will during its lifetime bring the dealer a return in excess of the profit on the original sale. Multiplying the profit to be derived from this one truck by 10, 20, 30, or whatever the number of units employed by any given operator, and then by several such fleets in the territory, and the enterprise runs into profitable big business. Furthermore, if the dealer provides satisfactory service during the life of the truck, the cycle may be repeated by the sale of a new vehicle.

To get this profitable repair business dealers and manufacturers' branches must go after it. They hold the winning cards! The ace is night service and is followed by the strong cards of adequate equipment, satisfactory workmanship, close cooperation and factory help. But to just hold the winning cards is not sufficient. The service station to win must play the cards for all they are worth.

Fleet operators demand night service. They demand it because it permits them to cut idle truck to a minimum and establish such records as an average of ten hours idle time per vehicle per year due to repairs. Therefore one of the first things that a service station planning to capture fleet repair work should do is to investigate the possibilities of such service, and then, after settling all details concerning its formation, organize a regular night shift. It should consist of a distinct and

TRUCK DEALERS TO WIN FLEET

But to Play Them Right
Outside Service Shops
Must Be Fleet-Minded

separate night force and not a day force working overtime. The day force should perform miscellaneous, emergency, short-time and unit assembly repair work. A service station with a night shift on this basis can't be ignored.

Adequate equipment, of course, is another essential, and service stations for the most part are not wanting in this category. But no matter how true this may be, does the fleet operator know this? The service station grooming itself for this business must show the fleet operator that it has ample housing facilities, adequate tools, parts and sufficient personnel. This can best be done by taking an inventory of all the special and labor-saving equipment and tools in the shop and by analyzing shop facilities and working staff, noting all characteristics suited to fleet service needs. This information should be recorded and carried in the portfolio of the shop representative when contacting operators for use as arguments in case any question relative to the shop, lay-out, equipment or personnel is brought up.

In this article, the second of a series of two, a fleet operator presents his ideas of what dealer, branch and independent shops should do in order to get fleet work.

The first article, which appeared in the September issue, pointed out the handicaps in maintaining a fleet shop, which led him to turn to outside shops for service.

After ordering the physical aspects of the shop to fleet service needs the dealer's or branch's next move is selling. This should involve the laying-out of a sales campaign in which all facts of compelling interest to the fleet-operator are lined up; information that will convince the fleet operator that it would be worth while to tie-up with dealer or branch service.

With this sales ammunition, the service station is equipped to canvass all fleets in the territory. Every laundry, meat market, grocer, coal dealer, ice dealer, utility, etc., in the territory should be solicited, and their executives approached on the advantages of dealer service.

Although it is quite possible that the service salesman may have to admit in some cases that an individual job may cost as much in his shop as it did or does in the fleet shop, he can counter with a number of other very good arguments. He may point out that because of night service no time is lost for repairs during regular working hours. He might argue that service station repair work is guaranteed, while defective work turned out in the fleet shop is done over again at additional cost. He might add that no extras, gadgets or "Russian government jobs" can be loaded on service station shops, as so frequently occurs in fleet shops. In some instances, he might project the following economy angle: that only one overhead on parts is included in the total cost, and that the

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HOLD THE CARDS REPAIR BUSINESS

By a
FLEET OPERATOR

whose prominent name and
connection are withheld in
conformity with the policy
reasons of his company



THE HAND

- A
♣ Night Service
- K
♣ Adequate Equipment
- Q
♣ Satisfactory Work
- J
♣ Close Cooperation
- 10
♣ Factory Help



TRUCK SALESMEN DON'T TOOT THE RIGHT TUNE

That's the Verdict of a Fleet Man
Who for Years When Buying Trucks
Has Listened to the Same Old Air

SALESMAN D. R. Harrington's piece "A Truck Salesman is a Bull in a China Shop," appearing in the July, 1931, issue of *COMMERCIAL CAR JOURNAL*, should, by this time, have provoked considerable thought among the gentry who earn their pork chops peddling trucks to the vast army of operators throughout the nation. But Salesman Harrington failed to "follow through."

Along near the end of his screed, in telling what the salesman must know, he says: "Finally, he must earnestly strive to understand the needs of the man to whom he wishes to sell a truck." There, friends, is a thought, but it needs elaboration.

That thought should be the foremost, rather than the hindmost, consideration of the truck salesman in approaching prospective truck buyers. Five and a half years' experience in assisting in the preparation of budgets for the purchase of replacement and additional trucks for a public utility fleet that numbers two hundred passenger and truck vehicles, have convinced the writer that truck and car salesmen pay too little attention to what the fleet operator actually requires and can actually use profitably.

In these days of well-published specifications for each and every make of vehicle, the operator pretty well knows the mechanical structure of the various units offered for sale. And in this day of high competition, it has been my experience that every make of truck gives the operator his full dollar's worth of value, if properly employed. In other words, all trucks are good—this business of finding flaws in the other fellow's truck is a lot

of Bull Durham. But some trucks are better than others for certain types of work.

Vocational adaptation is the thing nowadays. The modern operator wants a truck to do a certain specific work, and where he is not too strictly standardized on vehicle makes, for purposes of economic repair and maintenance, he is going to buy the make that fits his job. And it's got to be a good fit.

Here is a case in point. For several years the representative of a well-known make of truck has been trying to sell us his truck. Now, he presents the argument that his truck is one of the most widely used for a multiplicity of purposes, and that, structurally and from the engineering standpoint, he has a real product. We readily grant him all that, but, exhaustive analyses of our needs have repeatedly convinced us that he has not a model in his entire line that will do any one of our jobs as economically as will some other make. He presents the argument that other public utilities throughout the country are using many models of that make of truck. Very true. It is a good truck. But we have particular conditions in our operations that do not occur in other public utilities, and, conversely, they have conditions which we do not encounter. But this representative apparently cannot see eye to eye



By WILLIAM E. FRAZER
Fleet Operator
San Diego, Calif.

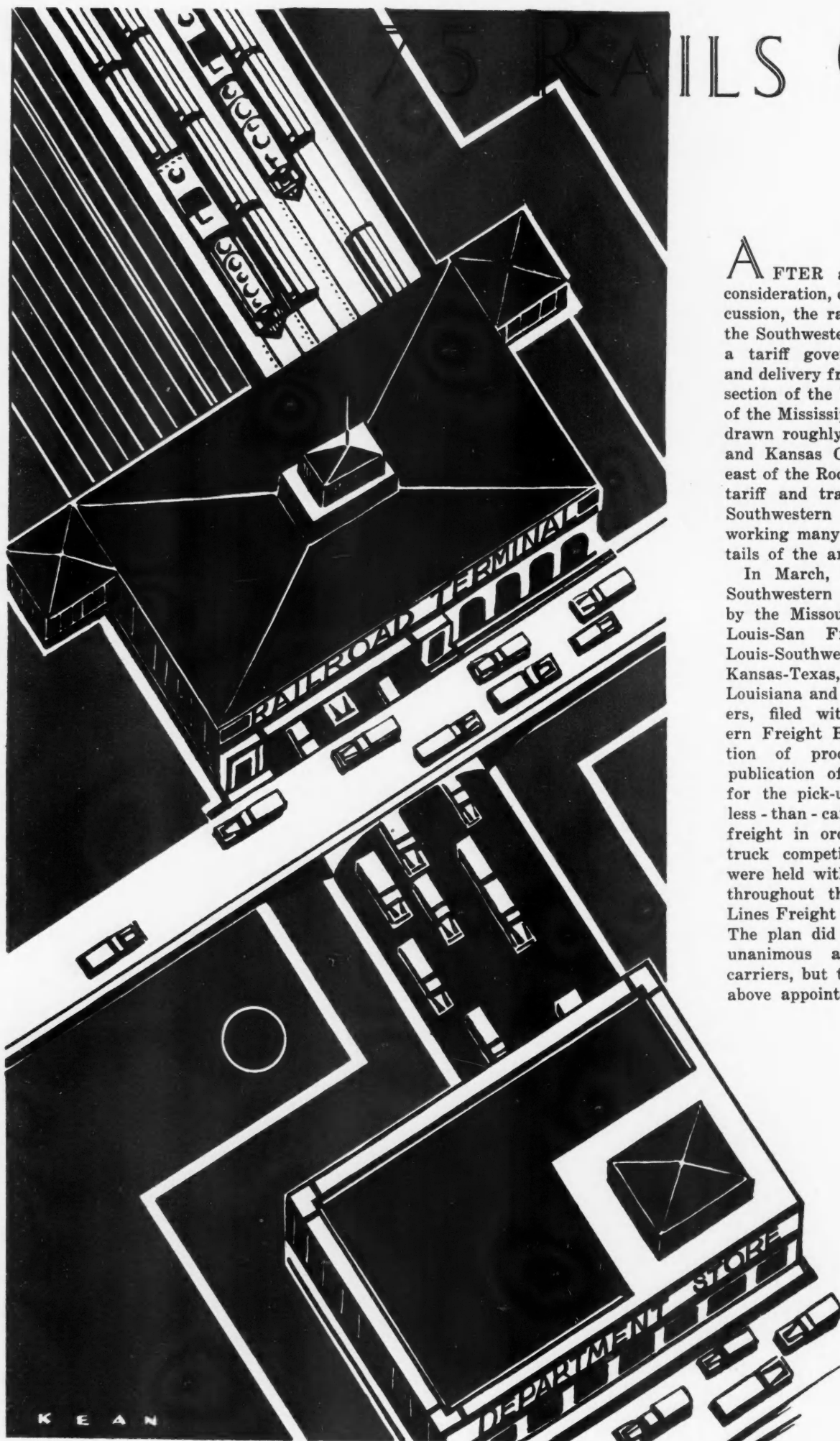
with us on the matter. As a result, he is convinced in his own mind that we will have none of him, that we are prejudiced against his product and think it to be inferior. But that is not true. Our operating methods and conditions will not permit us to use anything in his line.

Not long ago, a fleet operator of my acquaintance required a dump truck for handling a specific type of work indigent to his own particular line of business. He had decided that he would have to use a four-wheeler for that work, and, as the work was important, he had to know that the unit he purchased was just right in every respect. Now, there are a lot of good chassis on the market, and a lot of good dump bodies and hoists to fit them, but one salesman tried hard to convince this operator that he needed a six-wheel unit. No amount of argument would convince the salesman to the contrary. His product was good, but his four-wheeler was not what the operator wanted. The salesman wasted a lot of time trying to sell this man something the man knew he could not use, stating that all kinds of contractors were using his make of truck. Certainly. There was no doubt about that point, or about the quality of the unit. But this operator was not a contractor.

And here is another point for salesmen to think about. While their particular make of truck might do the specific work required by an operator, as well as the make the operator finally selects, it may not do it as economically. A study of comparative operating costs over a period of years, not only of our own fleet but of other public utility fleets, under varied operating conditions and varied classes of work, has proved that there is a considerable spread in operating costs of different makes of trucks of like size and capacity, performing the same type of work, and in the operating costs of the same makes and sizes of trucks performing different types of work. Geographical location, in a good many instances, accounts for much of this va-

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RAILS GO



AFTER a dozen years of consideration, experiment and discussion, the railroads comprising the Southwestern Lines have filed a tariff governing the pick-up and delivery freight service in the section of the United States west of the Mississippi, south of a line drawn roughly through St. Louis and Kansas City, Missouri, and east of the Rocky Mountains. The tariff and traffic officers of the Southwestern Lines have been working many months on the details of the arrangements.

In March, 1931, a group of Southwestern Railroads headed by the Missouri Pacific, the St. Louis-San Francisco, the St. Louis-Southwestern, the Missouri-Kansas-Texas, the Santa Fe, the Louisiana and Arkansas and others, filed with the Southwestern Freight Bureau their intention of proceeding with the publication of tariffs providing for the pick-up and delivery of less-than-carload merchandise freight in order to meet motor truck competition. Conferences were held with various railroads throughout the Southwestern Lines Freight Traffic Association. The plan did not meet with the unanimous approval of the carriers, but the lines mentioned above appointed a working com-

STORE DOOR DELIVERY

Trucking Companies Will Perform
the Pick-Up and Delivery Services
As Agents of the Railroads

mittee to proceed with the task of drawing up the rules, regulations, rates and allowances pertaining to the proposed service.

The actual tariffs prepared by the working committee have been filed by J. E. Johanson, the agent of Southwestern Freight Bureau, with the Interstate Commerce Commission, to become effective on Oct. 1, 1931. About 75 large and small railroads are participating carriers in the tariff. This number includes a dozen or more major Southwestern railroad systems.

● Services Included ●

The store-door service setup by this first major territorial railroad store-door freight plan includes calling for and collecting the freight, issuing receipts for it at the docks, platforms, doorways directly accessible to trucks at the shippers' warehouses, factories, stores or places of business, and transporting the freight in motor vehicles to the carriers' freight depots. It includes also the transportation of the goods in trucks from the delivering carriers' freight depots to the places of business of the consignors at the destination. The districts within which the pick-up and delivery services are rendered are within the corporate limits of the numerous cities in which the service is rendered.

Requests for the pick-up service may be made by shippers through notifying the agent of the railroad at the point of origin that the service is desired. The bills of lading and shipping orders covering the shipments must indicate that the service is to be given. The tariff provides that the originating carriers "will endeavor to honor promptly such requests, but will not be responsible for shipment or delay thereto, until receipted for and loaded on truck or dray."

Requests for delivery service may be made either by the indorsement or stamping upon the bill of lading

By G. LLOYD WILSON,

Professor of Commerce and Transportation, University of Pennsylvania

by the shipper indicating that delivery service is desired together with the address of the consignee; or by written standing instructions filed by the consignee with the freight agent of the delivering railroad at destination, showing the extent to which delivery service is desired in connection without inbound shipments.

No charges are made by the railroads for the pick-up or delivery services if the freight moves at railroad rates over certain minimum rates. These minimum rates vary according to the origin and destination of the traffic. When the railroad class rates are less than 48c first class, 41c second class, 34c third class, and 26c fourth class, additional charges for store-door pick-up or delivery service are added. The amount added for pick-up or delivery varies with the rates paid. If the first class railroad rates are less than 38c per 100 lb., the trucking charge for pick-up or delivery service is 10c per 100 lb., first

class, and correspondingly lower charges are assessed for classes lower than first class. If the first class rates are between 38c and 42c per 100 lb., the pick-up or delivery charge is 6c per hundredweight, first class. If between 42c and 48c the charges for pick-up or delivery service are 2c per 100 lb., as shown by the following table:

Railroad Freight Rates per 100 lb.	Charges Added for Pick-Up or Delivery Service per 100 lb.			
	Classes 1 (Western)	2	3	4
38c and less	10	9	7	4
42c and over 38c	6	5	5	3
46c and over 42c	2	2	2	1

Lower extra cartage charges are assessed upon shipments of cotton piece goods and other freight shipped under commodity rates or exceptions to the western classification.

Additional charges at the rate of 10c per 100 lb. are assessed for the pick-up or delivery services rendered by the carriers in connection with freight which moves upon the basis of the joint rail-and-water freight rates applicable via the Federal Barge Line, the Mississippi Valley Barge Line Co. or other barge line companies.

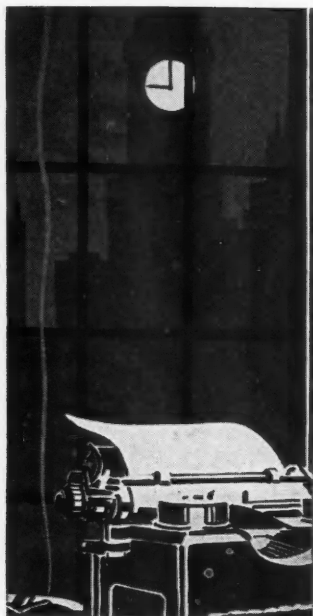
● Allowances ●

Allowances at the rate of 5c per 100 lb. are paid to the shippers if shipments are delivered by the shippers to the railroad freight stations. Payment of these allowances is made within 30 days after the shippers file claims for refund supported by itemized statements listing the shipments covered by the claims. The shippers must file also a certificate that the shipments would have been entitled to pick-up service under the provisions of the Southwestern Lines tariff. The claims must include all shipments upon which allowances are claimed during the same calendar month, and they must be filed with the carriers from whom the allowances

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The new service which railroads believe will recover at least 75 per cent of the short haul traffic lost to trucks will be put in operation in Arkansas, Colorado, Illinois, Kansas, Louisiana, Mississippi, Missouri, New Mexico, Oklahoma, Tennessee and Texas.

Our purpose in giving full details of this railroad development is to enable truck operators, dealers and salesmen to familiarize themselves with its nature.



AFTER HOURS

S.A.E. Agrees on Action

The S.A.E. committee to which was assigned the task of finding a means of rating motor trucks held a meeting in Atlantic City during the A.E.R.A. Convention. Speaking among friends, we may say that some of the members came to the session with misgivings and mental reservations about the possibility of doing anything about rating motor vehicles. They brought along also ideas about how, if ever, trucks could be analyzed, evaluated and designated. That these views varied and, alas, were diametrically opposed in some cases soon came to light.

From an unexpected viewpoint came the clarifying thought which brought about an agreement upon a plan of action and a decision to meet again during the Transportation Meeting of the S.A.E. in Washington, D. C. This same idea challenged present ratings by tonnage or vehicle gross weight and propounded a test by which all rating methods should be judged.

Just what information does a fleet owner, or a single buyer, use in making comparison or setting a value upon a motor truck? This simple question asked casually halted an interesting discussion of mathematics during which the Buckendale formula was taken apart and reassembled, turned upside down and put back upon its

feet again, as good as new. The question whether or not present ratings satisfy fleet owners or other prospective buyers immediately arose.

The answer was an emphatic NO. One nationally known engineer said "ratings can't be worse," and he and others picked a lot of flaws in ratings based solely upon weight, whether expressed in tons of carrying capacity or vehicle gross weight. When a manufacturer says that a certain model is a 1½-ton truck he tells only part of the story. He states that the truck can carry 1½ tons, but he mentions neither how, nor where. How, in this case, means how fast the truck can move itself and its 3000-lb. load and the speed the engine is making meanwhile. Where, in this instance, denotes the grade the truck can climb in high gear, loaded to capacity, and the extreme grade it can climb in low gear.

The Buckendale formula can be transposed to give hill-climbing ability if all other factors are known, or, if hill and road surface be assumed, it gives the total weight the powerplant can haul. It lacks the factor of speed entirely.

3-Fold Rating

Three factors were suggested by one committee member as likely to appeal to truck buyers, large and small. These three figures to be combined into one hyphenated arithmetical phrase, as—20,000-3.5-45. The first figure shows a vehicle gross weight to include chassis, body, cab and load. The second is an ability factor expressing in per cent the grade the vehicle can climb in high gear, as calculated by the Buckendale, or a similar formula. The third figure shows the maximum speed of the

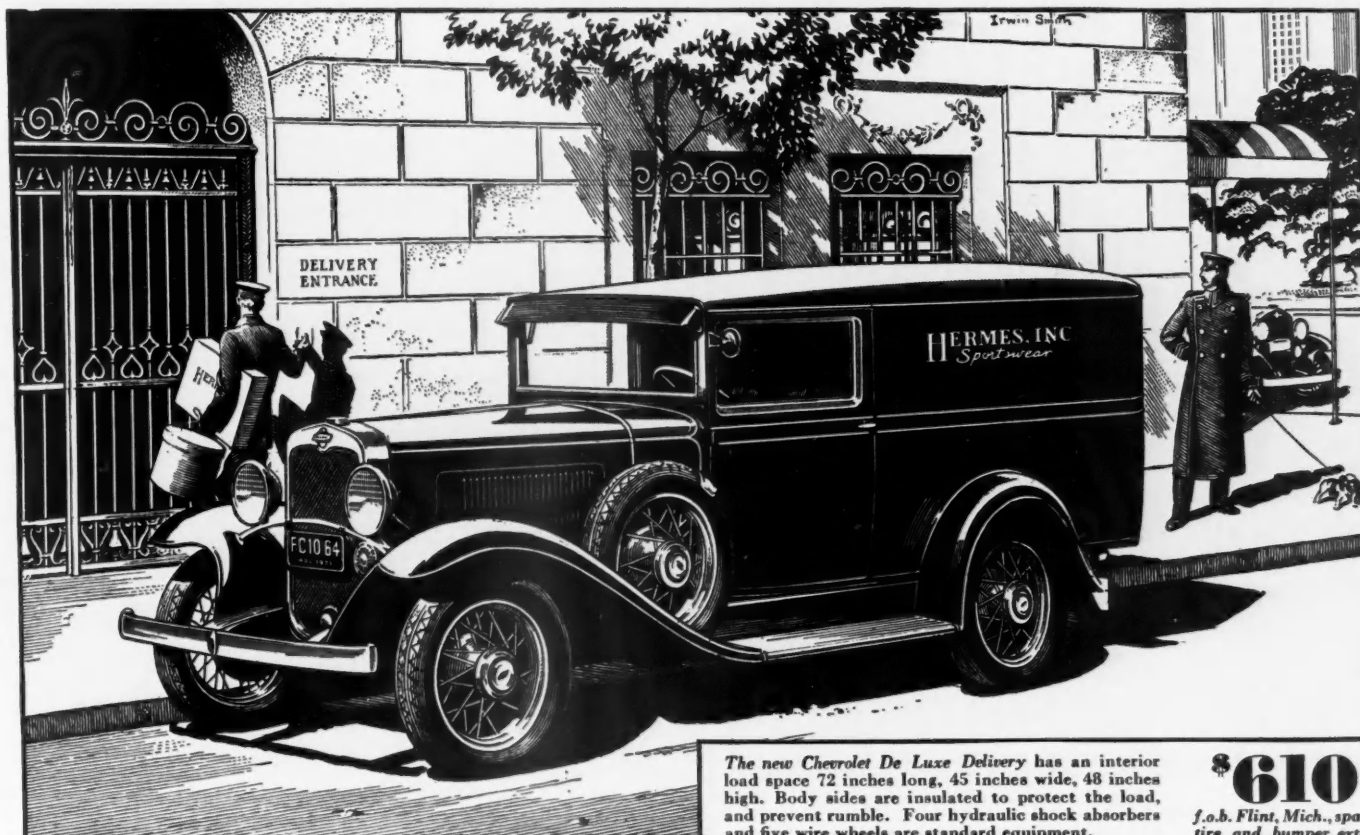
truck at governed engine speed or recommended engine speed.

Workable Formula

Both ability and maximum speed can be figured by formula and direct calculation, but determining strength of the chassis and component parts is "a very complex problem," as one truck engineer pointed out. He visioned calculation of stress in frames, springs, axles, static and impact loads—quite beyond the range of a committee session in one afternoon. All agreed that chassis weight alone should not be accepted as a basis for rating trucks because future design of light-weight but rugged chassis might thereby be hampered by "un-engineer"-minded legislators.

The formula method of rating has the advantage that it would enable any dealer, state official, owner or other interested party to work out the rating after determining certain facts, such as engine size, about a particular truck. Factory discretion, salesman's hopefulness, user's expectations are out. Not an easy task, in all truth, to make up such an all-inclusive formula, but not impossible of accomplishment. The Army Ordnance Department has a data computer for anti-aircraft firing which solves a mathematical problem, which is full of variables, mechanically, and thereby points a gun at the point the airplane will be when the shell arrives at that point.

Fleet owners now have a chance to be heard by an attentive audience. In what matter do they wish trucks rated? With that point settled, the means of finding the desired answers can be found. We suggest that fleet owners set forth their views on this subject while the rating procedure is in the making. What say you?—J. W. C.



The new Chevrolet De Luxe Delivery has an interior load space 72 inches long, 45 inches wide, 48 inches high. Body sides are insulated to protect the load, and prevent rumble. Four hydraulic shock absorbers and five wire wheels are standard equipment.

\$610

f.o.b. Flint, Mich., spare tire and bumper extra

Chevrolet presents

**the
new
de luxe
delivery**

**an unusually smart
and economical half-ton truck**



This new de luxe delivery combines all the rugged qualities of Chevrolet trucks with the many appearance features and refinements that have made Chevrolet passenger cars so widely popular.

Radiator, headlamps and tie-bar are plated in sparkling chromium. Five sturdy de luxe wire wheels are offered as standard equipment, the extra wheel being mounted in a fender well at the side. In every way, this model *looks* the quality that is so carefully built in every part.

Like all Chevrolet trucks, this delivery has a fast, flexible six-cylinder engine that develops 50 horsepower (25 per cent more power than any other truck priced so low). A long frame of 152 inches, supported throughout by four long semi-elliptic springs, permits mounting a body of maximum capacity. And this de luxe delivery has the same efficient Chevrolet chassis that has made unexcelled records for economical operation and upkeep.

In addition to this model, your Chevrolet dealer offers a full line of 24 other commercial cars and trucks with Chevrolet-built bodies, selling at prices among the lowest in the market.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN

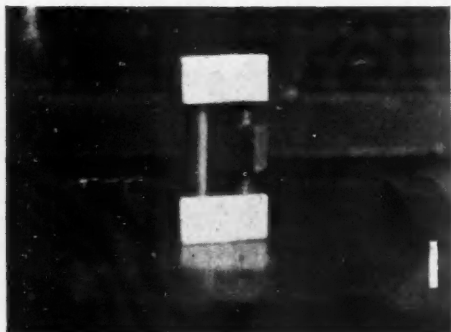
CHEVROLET SIX CYLINDER TRUCKS

FOR LOWEST TRANSPORTATION COST

IN addition to maintaining electrical equipment on gasoline trucks the maintenance shop of the American Stores Co., Philadelphia, also services a number of electric trucks. The electrical department of the shop, therefore, is larger and more complete than usual in a shop of its class. This department not only makes minor repairs to electrical units, but completely overhauls them, even including rewinding armatures and field coils of starters, generators and electric motors.

The same favorable conditions, mentioned in the June issue, page 30, which inspire mechanics to work out time and labor-saving devices, give a like incentive to the electric shop force. Although the devices shown on the accompanying pages are by no means all of those used in this department, they do show the diversity of equipment, ranging in size from hand tools to an electrically heated bake oven.

Interchangeable brackets and bench sockets are used throughout the shop for supports for tools and smaller units being repaired, such as truck engine generators. The brackets are built of $\frac{1}{2}$ -in. round stock, and sockets are set into the edges of workbenches with a wing type locknut, as shown in Fig. 8. Other brackets on bench tops are provided where needed. This plan makes it possible to mount a unit on a bracket and then work upon it on any workbench in the shop. Not least of the advantages of the mounting is the fact that it permits shop men to swing the unit around to any desired position, a great time saver on generator work.



16 CLEVER KEYS TO ELECTRICAL REPAIRS

Devices used by the American Stores Co. Philadelphia shop to unlock difficulties in servicing electric trucks and electrical equipment of gasoline trucks.

Fig. 1. Pole Spreader

Smallest of the devices shown is the pole spreader, Fig. 1, which measures 2 in. in length. It is composed of two steel blocks, a right and left threaded nut with square head and a round bar which is a tight fit in one block and a sliding fit in the other.

Fig. 2. Motor Stands

Movable stands with turntables on top are used for supporting electrical units during repair. Fig. 2. Swinging a heavy motor around or moving it from place to place is no fun, putting the weight on casters and rollers makes the job much easier.

Fig. 3. Electric Oven

Insulation on armatures and field coils is baked in an oven built in the shop, Fig. 3. The heating coils are mounted behind shields, one on each side. The parts to be baked are heavy and a frame on rollers is used to move parts into and from the oven. The frame itself is a rectangle of angles with three longitudinals and one cross member. It will support a 10-hp. electric motor with ease.

Fig. 4. Armature Balance Test

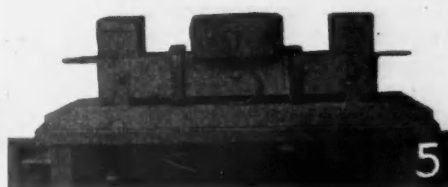
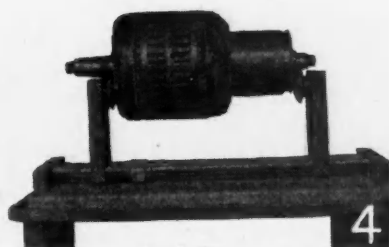
The armature balancing rig shown in Fig. 4 may be used for balancing other revolving parts. Ends of the armature shaft rest upon two pairs of knife-edge rollers which turn upon ball bearings. Uprights supporting the rollers are adjustable for length along two round bars forming the base of the machine.

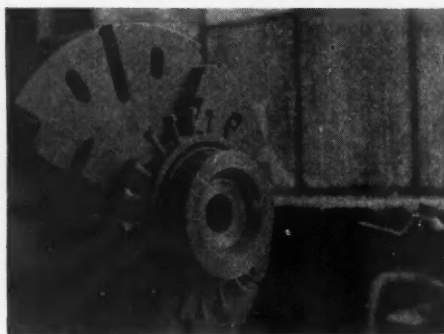
Fig. 5. Growler

The growler, Fig. 5, which was also made in the shop, is similar to those used for testing generators and starters except that it is larger.

Fig. 6. Coil Winder

The device shown in Fig. 6 is used for winding heater unit coils and similar jobs. These units are made of fine German silver wire which must be wound with all the accuracy of a screw thread. The heater unit is placed in a mandrel on one of the three parallel shafts. The feed screw is driven by gear from the winding shaft and it may be replaced, with ease, by another with a different thread. The part carrying the wire is fed by a fibre friction





7



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16 CLEVER KEYS TO ELECTRICAL REPAIRS

block which is not threaded. The blocks are held in place by springs and may be opened for moving the wire back to the other end of the unit. Tension on the wire is varied by tightening a spring forcing two fibre blocks, through which the wire passes, together. But little power is required to wind such fine wire, and the mandrel and coil unit, as well as the feed screw, are turned by hand by means of a short detachable crank.

Although this winder was devised for winding heater unit coils the same principle of design may be used for making winders for other types of cylindrical coils.

● Motor Overhaul ●

Ten illustrations, Figs. 7 to 16, inclusive, depict equipment used in the course of overhaul of electric motors, starters and generators. They comprise devices for making commutators, turning and undercutting commutators, and rewinding of armature and field coils. In smaller armatures the wire is wound directly, as on generators, but on larger motors the windings frequently are made separately and placed in position on the armature slots.

Fig. 7. Commutator Jig

The jig, Fig. 7, supports an assembly of commutator bars for turning in a lathe. Bars are made of pieces of bevel copper cut to uniform length. Insulation is placed between them and the assembly bolted together in the circular jig. Lathe cuts are made on the outside diameter, inside diameter, inside bevel and ends.

A ring through which a series of

cap screws extends, like the fingers of a hand, forms the base of the jig. The screws exert pressure on a flexible ring which contacts with the copper bars. This arrangement assures uniform pressure through the circumference of the commutator bar assembly which is essential to secure a true circular shape. The pressure is sufficient to make the assembly rigid so that it can be turned.

Fig. 8. Hand Coil Winder

Coils are wound either by hand or machine. The hand winder, Fig. 8, is shown in one of the bench mountings, previously mentioned. The center shaft supports two long slides which are adjusted for position by means of the long, threaded rod through the center with a short crank on the end. A short, eccentric rod operates the revolution counter, adjusting knobs of which extend upward. Wire is wound on two V-groove collars by turning the round handle extending from one collar. The collars are free to turn

upon short shafts and are held in position by a spring latch. The coil of wire is removed by detaching one of the collars and then slipping it over the end of the other collar. In case the coil is too tight to permit pulling the collar directly outward, tension is relieved by turning the adjusting crank one-half turn. The frame is marked with an inch scale to show size of the coil at any position of the slides.

Although only one winder is shown there are several of the same design but of different sizes.

The tension device, at left, straightens and puts desired tension on wire passing through the winder. Four grooved rollers are mounted on stub shafts on a circular base. Wire may be passed over two, three or four rollers as desired.

Figs. 9, 10, 11. Power Coil Winder

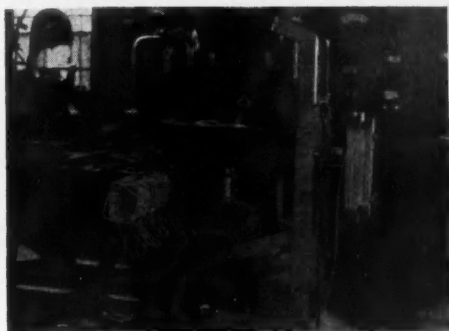
A power winder is illustrated in Figs. 9, 10 and 11. Major units are an electric motor, which transmits power to one end of an automobile transmission through a belt, a shaft above the transmission driven by belt from the other end of the transmission and a drop frame extension shown in Fig. 10. The transmission provides four speeds, counting reverse. Coils are wound upon shaped forms which are mounted upon the end of the upper shaft. If wire is taken from spools which can be mounted on the frame of the winder a simple brake is improvised by throwing a length of cord with a weight on the end about the grooved spool edge. Other spools are placed on the floor on U-brackets with the wire feeding directly upon the coil-winding form, as shown in Fig. 10.

Sturdy construction is required to take care of the weight of an overhanging armature and the motor and transmission. The frame is made of angles and bars, cross braces on sides and ends.

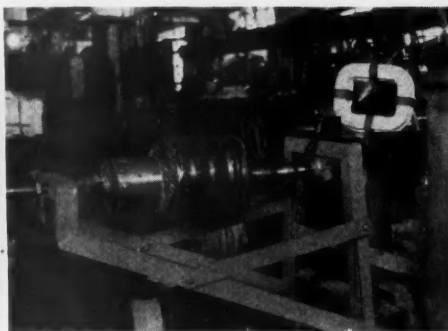
The drop frame extension, Fig. 10, carries an adjustable lathe center

The 16 Keys

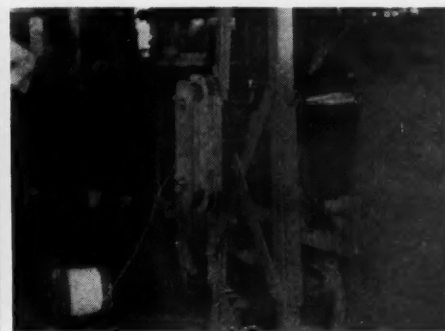
- Fig. 1. Pole Spreader
- Fig. 2. Motor Stands
- Fig. 3. Electric Oven
- Fig. 4. Armature Balance Test
- Fig. 5. Growler
- Fig. 6. Coil Winder
- Fig. 7. Commutator Jig
- Fig. 8. Hand Coil Winder
- Figs. 9, 10, 11. Power Coil Winder
- Figs. 12, 13, 14. Coil Formers
- Fig. 15. Armature Winder
- Fig. 16. Undercutter



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10



11

which lines up with a center formed on the end of the winder shaft. This permits mounting armatures in the machine. This illustration also shows the revolution counter, on top of the frame to the left of the coil, which is used for counting turns of wire in coils.

Figs. 12, 13, 14. Coil Formers

Armature coils are not mere flat layers of wire as the windings on armatures in Figs. 4 and 10 plainly reveal. Coils must be formed after winding to fit the winding slots in armatures. Methods of forming coils and the machines used for the purpose are shown in Figs. 12, 13 and 14.

The former are so completely adjustable that it may be said that they have no normal position. Coils vary in size as well as in shape, and latitude of adjustment is needed to meet this requirement. Shaping is done by engaging hooks at proper places within the coil and then applying pressure to move the hooks to the distance and in the direction called for by the coil shape.

A coil before forming is shown in Fig. 12. Two hooks with points extending downward engage the upper part of the coil, two other hooks with points extending upward hold the lower part of it, meanwhile a hook is placed at the center of each end.

Applying pressure to the hooks pulls the coil into the hexagon shape shown in Fig. 13. The six sides are not in the same plane, there being a decided offset between top and bottom of the winding.

The former, shown in Fig. 14, is similar to that above it, but is larger. This three-quarter view, however, shows the general construction. The base block and two light angles support the rectangular loops of round rod.

Fig. 15. Armature Winder

Smaller armatures are wound by passing wire directly around insula-

tion placed in the armature slots, as in Fig. 15. For this work the armature is mounted in centers in an adjustable bracket which fits the bench sockets. This bracket is a simple assembly of a center block, two round slides and a threaded bar to move the up-rights to desired center distance.

Fig. 16. Undercutter

Mica between commutator bars is undercut on the machine shown in Fig. 16. Two centers are placed in a heavy frame and the armature is placed between them, as in a lathe. Cutting is done by a miniature circular saw driven at high speed by a shaft sliding on two bars. The saw shaft is moved along the commutator by the upright handle and connecting rod. The saw is driven by round belt by an electric motor at the base of the machine. The armature is held steady during cutting by fingers.

In addition to the time and labor savers shown herewith a few others may be mentioned. Triple extension brackets are used on bench electric lamps. An upright tubing supports the extension arm made of a piece of tubing, inside of which is a smaller tube and in turn a steel rod. The lamp socket is attached to the end of the rod. The extension is long enough to place the light over the aisle and when in closed position brings the light right over the bench. Magnetos and generators are tested in fixtures built into a work bench and driven by a line shafting in the center of the double bench.

12

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16

WHY FLEET MEN

This operator discounts factory truck ratings because:

- Actual load-carrying ability depends on service conditions;
- All truck parts are not engineered to same capacity;
- Factory ratings are based on capacity of weakest part.

And therefore operates his trucks successfully with overloads by:

- Strengthening weak parts;
- Replacing light units with larger sizes.



F ACTORY ratings in my opinion are arbitrary propositions and do not mean very much because all units making up a truck are not engineered to the same capacity. We find that our heavy-duty trucks are capable of operating under loads of 150 per cent of present factory gross ratings if rim and tire sizes are adequate and gear ratios proper, while for work under 20,000 lb. gross one of the many "overgrown" passenger cars will do if strengthened in some units. For longer life a truck company's lighter duty truck will do for 50 per cent overload, but for duty like dump work or for use over dirt and gravel roads not too carefully surfaced, we would load these vehicles according to fac-



IGNORE RATINGS

By FRANK A. ROSE
Fleet Operator

sizes. In my opinion, ratings of loads for each size tire, as set by tire manufacturers, are very conservative, as we consistently overload a well-known tire 15 per cent without loss of mileage. We use balloons exclusively for highway work and obtain mileages of 40,000 to 60,000 and get a salvage value from the tire as well.

● Matching and Oversizing ●

Rim and wheel size should agree with tire sizes. For instance, when a certain truck manufacturer put out its 3-tonner with 30 x 5 tires, and then changed to 32 x 6 rims and tires, and their dealers finally put on 34 x 7 tires, there was too much extension of duty, which was reflected in speedometer changes necessary to compensate. When Timken axles are used, one oversize in rims and tires may be installed. Despite this 100 per cent overload above the Timken axle guarantee, service over a period of more than 150,000 miles shows no breakdowns, with only an occasional change of a bearing. Factory ratings on axles probably are made to cover extreme dump truck use, while we make fast runs with double loads on pavements. As proof of my contention, we recently sold a worm and gear that had been operated for two years under overload

and received for it something like one-third the cost of the improved worm and gear we installed.

Springs usually are adequate for their ratings only, so we always build them up to our requirements. But our problem would be much simpler were the springs uniformly $\frac{1}{2}$ in. wider, because with narrow leaves the spring assembly cannot be built too high on account of the swaying tendency of our 13-ft. high loading system.

I have no criticism to make of the universal joints except that in some six-wheel installations there is too much oscillation. A feature some manufacturers might note, however, when furnishing optional worm or bevel drive is alignment, otherwise the rear castor angle and elevation of carrier bearing will be improper. Many joints are destroyed from error in alignment at this point without the user, dealer or even the manufacturer knowing why.

While auxiliary transmissions are adequately rated to permit 100 per cent overload, more careful attention should be paid to selection of rear-axle ratios, otherwise the auxiliary will be operating 95 per cent of the time in overdrive instead of direct drive. For example, if the rear-axle ratio is slow, overdrive in the auxiliary is used to get high road speed, and as a result the auxiliary runs hot and its upkeep is increased.

Installation of auxiliary transmission in frame is another important point. Nature of highways in our section of the country requires mounting the auxiliary on rigid cross-members, which in turn are mounted semi-flexibly in the frame. Rigid cross-members would shear rivets or break frames because of the frame weaving

tory ratings with altered gear ratios.

As a matter of fact, the basis for many ratings seems to be the load-carrying ability of some of the weaker units, with the result that trucks are more often under than overrated. This being the case, we felt we were not using the maximum potential capacity inherent in our trucks, and as a result we did not get their full earning power, which loss, in the course of a year, runs into a considerable sum. So we decided to strengthen the weaker units or replace them with larger sizes. We have done this for a number of years with considerable success and are now carrying loads larger than recommended by truck manufacturers with complete safety. Here are our reasoning and accomplishments as we worked them out unit by unit.

From the operator's standpoint, gross ratings should start with tire

over our highways. Cross-members at rear of transmissions also are required to carry an extra strain through the use of driveshaft brakes.

Some manufacturers using fairly light main transmissions are employing annular ball bearing in their main-shaft assembly. These bearings seem to be unable to stand up under overloading, although adequate for advertised rating. But since dealer and factory differ 100 per cent in their ratings of the same truck, no transmission in over 12,000-lb. gross trucks should have light-duty bearings. This applies to the pilot bearing as well, which should also be heavier.

While clutches are rated all right for 100 per cent overloads, the flexible tubes used for lubricating throwout bearings should be stronger to prevent breakage and throwing of lubricant into the case instead of putting it into the bearing.

Disk-type brakes are working out better than the drum type, especially in regard to holding ability, drag and service. It is embarrassing to try to hold a load on a grade with a drum-type hand brake. Service brakes now used are quite adequate, especially those of hydraulic type. Parts are sometimes destroyed by the higher application pressures of some boosters, which are too powerful for the light type of service brakes used. But these cases are rare.

Frame sizes for the most part are heavy enough for 100 per cent overload, but even with the best a constant weaving is taking place. Side rails should be kept at a fixed distance from each other. By anchoring through fabric (not rubber) blocks, a limited amount of parallel weaving, to take up the sway of the load, is permitted, thereby curtailing breaking of cross-members and pulling and shearing of rivets. A factory expense of ten dollars for a better frame will often save the operator hundreds.

The relationship of wheelbase, cab to center of rear axle distance, frame size and balance of loading space should have more attention. Some manufacturers turn out units that are okay back to the cab, but from there back are stunted, having only room enough for a three-ton load, when as a matter of fact their layouts should permit a gross of 25,000 lb. Such jobs need altering and lengthening to take care of a larger body. There are some truck builders who consider these elements, but too many neglect them and make plenty of work for blacksmith shops correcting factory omissions and errors.

Method of mounting the cab should be determined by conditions. Three-

PROGRAM S.A.E. TRANSPORTATION MEETING

Washington, D. C., Oct. 27, 28, 29, 1931

Tuesday, October 27

Morning—10:00 A. M.—Technical Session

Chairman, F. K. Glynn

Paper—Problems Confronting the Transportation Engineer—T. L. Preble, S.P.A. Truck Corp.

Discussion.

Afternoon—2:00 P. M.—Technical Session

Chairman, E. S. Pardoe

(a) Comments on Motor Truck and Motorcoach Operation as Related to Railroads—Samuel O. Dunn, Editor, Railway Age.

(b) Was Motor Vehicle Transportation Helped by 1931 Legislation?—Pierre Schon, General Motors Truck.

Evening—7:30 P. M.—Inspection Trip
Washington Railway and Electric Co.

Wednesday, October 28

Morning—9:30 A. M.—Technical Session

Chairman, A. J. Poole

Papers:

(a) Commercial Application of Diesel Engines in Motor Vehicles—Colonel G. A. Green.

Discussion.

(b) Engine and Chassis Lubrication—A. J. Scaife, White Co.

Discussion.

Afternoon—

(a) 1:15 P. M.

Call on President Hoover (photo, etc.). (This is scheduled if possible for not later than 1:15 P. M., subject to the wishes of the President).

(b) 2:00 P. M.

Visit to Bureau of Standards for inspection of sections doing work of interest to transportation engineers.

(c) A short sightseeing trip.

Evening—8:00 P. M.—Technical Session

Chairman, C. S. Bruce

Paper:

Suggested topic—What the Bureau of Standards is Doing for Business—Dr. George K. Burgess.

Thursday, October 29

Morning—9:30 A. M.—Technical Session

(M. C. & M. T. Activity)

Chairman, W. J. Cumming,

Supt. Service Trans. Co., N. Y. C.

(a) Relation of the Motorcoach Body to the Chassis—R. W. Naegle, Bender Body Company.

(b) Relation of the Motorcoach Chassis to the Body—George H. Scragg, International Motor Company.

(c) Metal Bodies for Motorcoaches—C. O. Ball, General Motors Truck.

Afternoon—2:00 P. M.—Technical Session

Chairman, G. O. Pooley

Paper:

The Equipment and Operation of Fleet Repair Shops Versus Manufacturers and Commercial Repair Shops—John M. Orr, Equitable Auto Co., Pittsburgh.

Evening—6:30 P. M.—National Transportation Dinner

point suspension of cabs through rubber is satisfactory where the cab is not required to carry a load, but where they are loaded, fabric should be added at the rear corners to strengthen the back wall. The front mounting of load-carrying cabs should also have a layer of brake lining and an extra strip of angle.

As for engines, it is my experience that the following types and sizes of engines are best adapted under our road conditions for our various services:

(a) In heavy-duty trailer service of 68,000 lb. gross (the heaviest permitted on California highways without special permission), the engine should be about 500 cu. in. displacement with maximum torque at 1000 to 1400 r.p.m.; maximum power at 2400; best duty, considering life and operating cost, at 2000, and best economy at 1500 r.p.m. An auxiliary transmission will permit high speeds when running light or on level roads with slow engine speeds, and will insure use of direct drive when pulling, except on steep grades.

(b) In heavy-duty service without trailer the same type of engine with 425 to 450 cu. in. displacement could be used nicely.

(c) For work up to about 25,000 lb. gross a 360 cu. in. engine of the same type would do.

(d) For four-wheel vehicles with duty up to 20,000 to 22,000 lb. gross, a 325 cu. in. engine is adequate. However, as a substitute, a 280 cu. in. passenger car engine capable of 1000 r.p.m., greater speeds may be considered if used with a slower speed rear axle to give greater tractive effort on steep grades and about the same top speed. I think that over a period of 150,000 miles the latter engine would cost more for upkeep on account of faster ring and piston speeds and the inclination of the driver to put on classier performance with flashy pick-up.

(e) Below the 20,000 lb. gross class the engine out of any passenger car of a power and speed proportionate to gear ratio and tractive effort required over the route to be traversed will serve. For city delivery work and for service in short outlying districts a rebuilt passenger car will do.

(f) Vehicles to carry heavy loads slowly for short distances might be tractor-trailer outfits, or a low-ratio truck with a fairly small engine not specially built for this work. While one of the other types of trucks could be used economically for this work intermittently, for permanent duty a tractor with pneumatics and semi-trailer would be best.

75 RAILS GO STORE-DOOR

CONTINUED FROM PAGE 21

are due within 45 days after the last day of each calendar month during which the shipments are made.

The store-door pick-up and delivery services of the Southwestern Lines are extended to all less-than-carload freight upon which the charges are assessed upon the bases of class rates governed by the western classification, or exceptions to the classification or commodity rate governed by this classification or exceptions, and certain traffic governed by the southern classification. This latter traffic includes freight moving between St. Louis, Missouri and East St. Louis, Illinois, and points in the State of Missouri.

The services are not extended at all to certain commodities, including:

1. Cotton
2. Cotton linters or cotton regins
3. Cottonseed hull fiber shavings
4. Dynamite or high explosives
5. Empty returned carriers or containers when the freight charges are less than the fourth class rates, and where the loaded movements of the freight for which the containers were used were not handled by the rail carrier
6. Alcoholic liquors
7. Live animals

Pick-up service is rendered in connection with shipments transported in scheduled refrigerator cars only on the days when the refrigerator service is scheduled. When no such service is scheduled the pick-up service is performed only when the perishable shipments are to be handled in ordinary

box cars. The bills of lading or shipping receipts covering these shipments should bear a notation showing that the shipments are to be handled in box car freight service.

Shipments covered by negotiable order-notify bills of lading are not given the pick-up or delivery services. Only shipments which are covered by non-negotiable bills of lading and where there is no provision for the surrender of the bills of lading or other documents prior to the delivery of the freight are given pick-up or delivery service.

The pick-up or delivery services, moreover, are not extended to shipments of fresh meats, packing house products, lard, lard substitutes or other articles grouped with these articles in peddler car service. Peddler car service is the service rendered by the railroads to these articles permitting them to be shipped in refrigerator cars and stopped at a number of stations where part of the contents of the cars is unloaded for delivery to local merchants at each station.

Restrictions are also made denying the pick-up or delivery services to shipments which must, under the rules of freight classification, be loaded or unloaded by the shippers or the consignees.

Articles of unusual size and weight, such as (1) articles in one piece or package of dimensions exceeding 14 ft. in length, 6 ft. in width or 6 ft. in height; articles in one piece or package exceeding 22 ft. in length regardless of the size of other dimensions, and plate glass in packages exceeding 4 ft. in width or 9 ft. in length, are not given pick-up or delivery service.

TURN TO PAGE 48, PLEASE

TRUCK SALESMEN DON'T TOOT THE RIGHT TUNE

CONTINUED FROM PAGE 19

riance in costs, so that when the salesman tells the buyer that the Whoosis Gas and Light Co. over in the next state operates 10 of his make of truck for so much per mile, he's not telling the buyer anything of any particular value.

Generally speaking, it would appear that salesmen do not sufficiently analyze the local conditions and needs of the operators to whom they desire to sell trucks, and therein they are missing a bet, or a couple of bets. Truck salesmen have a golden opportunity to benefit greatly the truck manufacturing industry and the fleet operators, by learning to thoroughly localize truck needs in their districts, rather than depending on generalities. Instead of stating to a prospective purchaser that 75 per cent of the contractors use a certain model of his truck, or several models, he should find out definitely what that prospect's own particular local conditions are, and then, if he has a truck that he knows will economically perform that work, take off his coat and go to work. But if he has nothing in his line that will fill that specific bill, no matter how well his truck is built, how powerful his motor, how many up-to-the minute accessories it is equipped with, he should gallantly turn away and consider that he is doing the industry at large a good turn by refusing to try to sell something that the buyer cannot really use economically. It will give the buyer more faith and confidence in the salesman, and some day that buyer

TURN TO PAGE 50, PLEASE

Domestic New Truck Registrations by Makes and Months

	Autocar	Brockway-Ind.	Chevrolet	Diamond T	Dodge	Fargo	Fargo	Federal	Ford	G. M. C.	International	LaFrance-Rep.	Mack	Moreland	Paige	Pierce-Arrow	Relay	Reo	Rugby	Schacht	Sterling	Stewart	Studebaker	White	Willys-Overland	Total Sales Including Miscellaneous
January.....1931	223	154	7,569	167	1,183	23	31	111	11,313	447	1,325	28	225	16	27	3	13	273	32	15	62	84	297	221	159	24,415
January.....1930	160	249	8,754	242	1,608	41	186	169	13,233	727	1,835	43	345	51	14	4	28	698	90	21	145	97	104	413	440	30,241
February.....1931	177	107	7,459	135	1,129	31	36	100	10,868	388	1,368	34	184	12	20	4	28	261	30	11	47	85	268	204	184	23,466
February.....1930	135	235	10,332	207	1,269	43	152	162	14,008	552	1,928	44	298	29	43	1	30	565	67	20	74	155	91	320	431	31,882
March.....1931	121	151	9,396	144	1,363	15	28	123	14,731	454	1,881	36	287	17	29	9	18	308	30	10	57	119	362	207	283	30,609
March.....1930	195	384	13,011	264	1,595	48	157	228	19,551	936	2,364	55	452	56	52	3	45	682	62	27	106	265	102	407	559	42,182
April.....1931	155	215	11,195	236	1,575	33	17	150	17,755	590	2,295	58	344	19	20	18	42	354	31	21	104	166	381	228	346	36,848
April.....1930	216	492	14,055	300	1,684	52	153	252	21,757	1,242	2,740	71	566	57	64	4	61	903	47	47	147	314	98	480	564	47,032
May.....1931	155	190	9,932	260	1,492	24	13	170	15,675	543	2,382	40	355	19	18	17	38	306	20	16	101	175	426	254	421	33,496
May.....1930	212	544	12,825	373	1,504	59	152	213	19,758	1,191	2,531	49	717	36	55	2	93	737	59	55	147	305	115	452	456	43,245
June.....1931	179	144	8,970	240	1,285	37	14	144	12,448	513	2,078	45	294	11	24	18	29	466	20	25	59	136	288	267	351	28,496
June.....1930	183	481	9,761	261	1,113	56	118	158	15,669	889	1,917	56	446	29	19	2	43	581	54	38	109	207	102	412	352	33,512
July.....1931	136	143	9,539	304	1,251	32	12	151	12,932	728	2,282	58	288	22	9	12	34	648	18	4	71	129	301	233	355	30,101
July.....1930	194	388	10,947	338	1,080	47	124	209	19,841	882	2,477	50	577	39	35	2	41	583	71	43	100	266	88	460	409	39,888
August.....1931	112	186	8,979	267	989	37	7	125	11,575	735	1,827	25	289	12	17	8	21	609	16	14	59	117	248	207	277	27,070
August.....1930	171	251	9,544	277	707	32	91	142	17,078	604	2,223	51	405	33	29	3	27	436	72	26	102	184	85	399	295	33,758
Total 8 Mos. 1931	1,258	1,290	73,039	1,753	10,267	232	158	1,074	107,297	4,398	15,438	324	2,266	128	164	89	223	3,225	197	116	560	1,011	2,571	1,821	2,376	234,501
Total 8 Mos. 1930	1,466	3,024	89,229	2,262	10,560	378	1133	1,533	140,903	7,023	18,015	419	3,806	330	311	21	368	5,185	522	277	930	1,793	785	3,343	3,506	301,740

SHOULD the manager of a commercial fleet give to his drivers merit awards and cash bonuses to promote fleet safety?

At all conferences to consider accident-prevention problems this is a live question of discussion. But the discussion usually relates mostly to cash bonuses, with decided opinions for and against. The defenders of the cash bonus contend that there is no sharp distinction between awards and bonuses. They argue that all fleet managers who have a systematic program for safety education necessarily give special recognition to those drivers who make the best no-accident records. Such recognition, they argue, is a kind of merit award and differs only in degree from a cash bonus payment.

The driver who, because of his safety record, receives even a word of congratulation or a hand shake from "the chief" has been honored among his fellows. It is a natural evolution, say defenders of the cash bonus, gradually to give such drivers more and more recognition. Perhaps at first only a safety certificate. Then a safety medal. Then an honored place in a public presentation of awards. Then a salary promotion based on

do not feel the need." Then he outlined his method of "education and stimulation" which have brought an accident reduction, comparing the first seven months of 1931 with a like period in 1930, of 81.7 per cent in property damage, 92.3 per cent in collisions, 99.8 per cent in public liability, and 97.9 per cent in attorney fees. During this period the number of automobile accidents decreased 13.6 per cent.

● Six Nays ●

An outstanding summary of the arguments against the cash bonus has been made by Robert Clair, supervisor of the highway safety department of a large insurance company (Liberty Mutual Insurance Co., Boston), and formerly safety supervisor of the Checker Taxicab Co. of Boston. He had drawn up six points of indictment, in brief as follows:

1. The authority to distribute "a fat bonus fund" permits "the greenest and most uninitiated safety engineer" to conduct a successful no-accident fleet campaign, because the "money compensates for his lack of knowledge and experience."

2. In industrial plants the employee is not paid for working

safely. Safety is a part of his daily production duties.

3. The normal worker is paid for the proper care and safe handling of his tools, and for the commercial driver, his vehicle is a "tool." To pay him a bonus spoils him and ruins his conception of his true responsibility.

4. Once we institute a bonus plan and then later try to take it away, our drivers will say, "You paid us for driving carefully last year, why not this year?" But try to answer that satisfactorily! Their morale is gone!

5. When a bonus plan is suddenly applied to a fleet whose experience has been bad, improvement is soon obtained and the bonus idea is given the credit. As a matter of fact, equally good preliminary results could have been obtained without the bonus.

6. Results obtained from a bonus plan are usually temporary. They will last only as long as we can afford to keep paying, frequently not that long.

In a discussion at a National Safety Congress, one fleet manager stated that he had avoided the bonus plan because it developed a tendency on the part of the operator not to report accidents. This suggestion was answered by

SAFETY REWARDS! CASH,

his safety record. Then a definite cash bonus payment in recognition of a definite cash saving to the company.

Robert C. Haven, director of personnel and safety of the Baxter Laundries, Inc., Grand Rapids, Mich., was asked to state his experience with about twenty different laundry fleets.

"We do not have a bonus plan," he said. "We believe the men are being adequately compensated and should use ordinary care in the use of the company's cars. Economic or business conditions later may suggest the use of the bonus plan, but at the present time we

Fleet operators wondering whether drivers should receive extra consideration for safe driving will find in this article four schools of opinion—that the driver deserves nothing extra for safety; he should be given cash; an award, or both cash and award. The article also contains 20 different combination bonus and award plans.

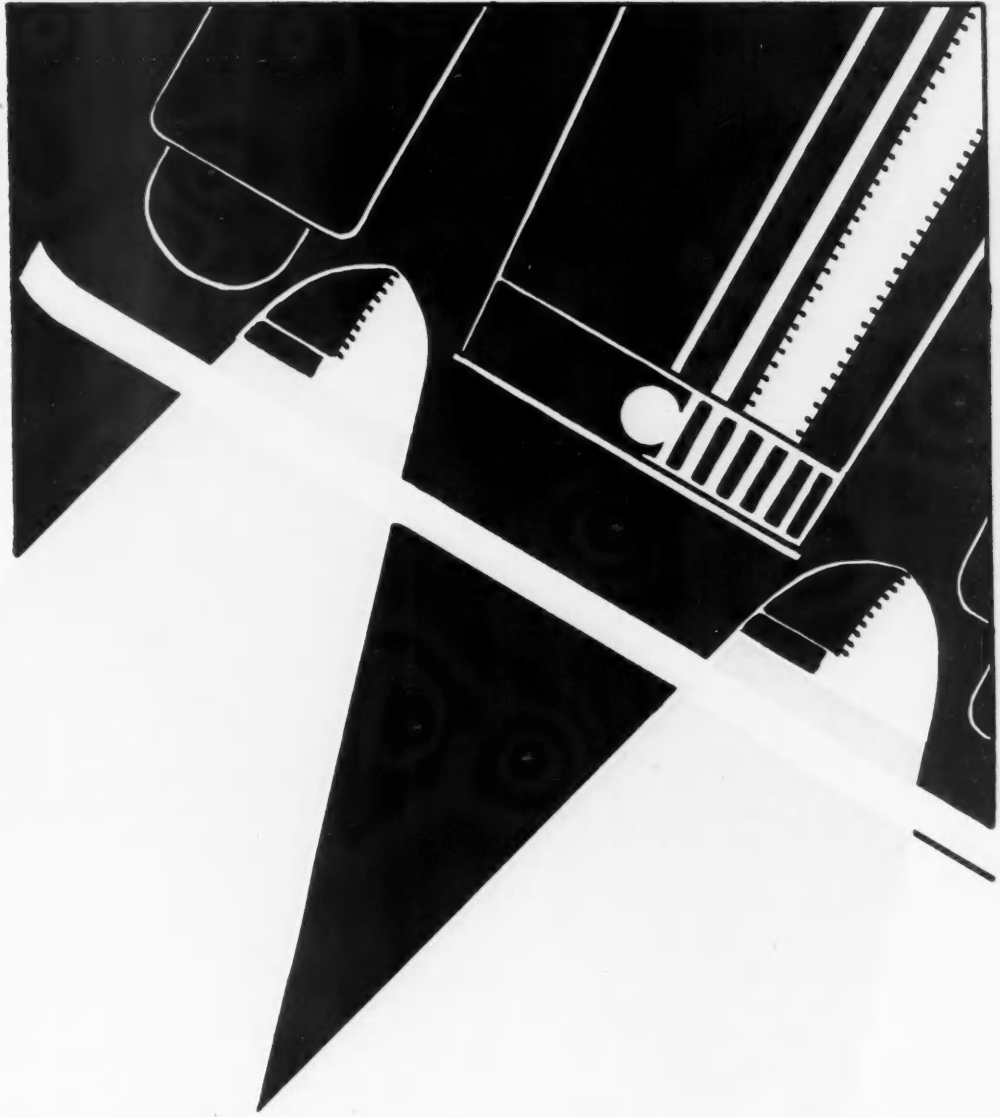
another fleet manager as follows: "I found, when we started a bonus that our accident report decreased very materially. But it was because our men used good judgment in discriminating. With the bonus in the back of their heads, they did not report as many trivial matters as before."

Another fleet manager presented the following suggestion: "We offered a little prize last year," he stated, "for men who went a certain period of time without an accident. But when it came time to award the prize, we discovered it was going to create a great deal of hard feelings. So

some of the fleet managers gave buttons also to all the poor devils who had had accidents, in order to avoid any hard feelings."

Still another fleet manager found that some so-called "trivial and unreported accidents" later turned out to be quite severe. To meet this situation he ordered all accidents be charged against the operator, but he had the right to appeal to a special safety committee for a reversal of the charge. Still another fleet manager to meet this problem charges a stiff penalty of \$45 for each failure to report an accident.

In support of a combined cash bonus and merit award plan there is a great deal of evidence. One example is the Wisconsin Ice & Coal Co. of Milwaukee. Each driver of their 175 delivery trucks is given a \$5 cash bonus for every three months free from accidents. General Superintendent H. S. Hirschfield states that "we reduced accidents 50 per cent in the last two years and are working for an even better record in 1931. Our first quarterly re-



HONORS OR NOTHING?



By R. R. HOWARD
National Safety Council

SAFETY REWARDS! CASH, TRINKETS OR NOTHING?

port shows 118 accidents this year as against 265 for the same period last year." In May "No-accident driver awards" of the National Safety Council were presented to 21 of their men who in 1930 drove a total of 225,000 miles without accidents. Eleven of their drivers had had no accidents for two years. These results were credited by Mr. Hirschfield to the company program of quarterly cash bonuses, safety awards, and "air-tight inspection to insure that the men have safe equipment."

A novel bonus plan is reported by a company which operates a fleet of 30 auto trucks from an up-state town into New York City. For every accident for which he is responsible, the driver is fined \$5, and he receives a bonus of \$2 for each month without an accident. For the months reported, the company had paid bonuses of \$60 and had had no accidents. It is said that the men have suggested that the fine be increased to \$10 and the bonus to \$4.

● Paper Credit ●

The following bonus plan is reported by a Detroit organization. At the beginning of the year each driver is given a \$60 paper credit. If at the end of 12 months he is still with the company and has had no accidents and has lost no tools, he receives this \$60. Otherwise, the cost of all tools lost and a charge of \$5 for each accident is deducted from this fund. The driver, to avoid argument, is charged with any accident "costing money," regardless of responsibility. If the driver is married, his wife is notified at the beginning of the year of the \$60 bonus credit. This plan is credited with "reducing fleet maintenance costs, cutting down accident frequency, and giving a smaller labor turnover."

The General Ice Cream Corp. of Schenectady, N. Y., has four classes of drivers. Each driver is credited monthly with his auto mileage and charged with the mileage applicable to penalties served against him for accidents. At the end of the bonus period, Dec. 1, each driver is paid for his net total mileage at the rate for his class. When an accident occurs, the assessment against the driver is based on his degree of carelessness as fixed by a safety committee, although the driver is given an opportunity to protest. One-half of the bonus charged against the drivers who have had ac-

cidents is accumulated and distributed prorata at the end of each year among all drivers with clean records. Safety emblems are given for a period of six months, nine months, one year and two years without accidents.

A company at Newark, N. J., with 300 trucking vans, has been giving a bonus of \$5 for each 24 consecutive days without an accident, and a plan is being considered to give merit cards for no-accident periods.

The United Parcel Service of New York, with about 900 delivery service vehicles, issues accident cards to drivers on the basis of good records. Credit is allowed each driver for normal cost of car operation, the actual cost of gas, oil, tire repair, and accident costs is charged against his credit. Accident responsibility is determined by a safety court.

The United Parcel Service of Los Angeles, with about 350 light delivery trucks, presents wallets with engraved cards of appreciation for two or more years free from accidents. Drivers are given a monthly allowance for operating their cars and if expenses are less than this allowance, the difference is given to the driver in cash. All accidents are investigated by the division manager.

The Junge Baking Co. of Joplin, Mo., with 35 trucks, present no-accident radiator stars for one year. They give \$25 in cash or one extra week of vacation to all drivers who carry the gold star on their truck for one year—which means a year of driving without an accident chargeable to the fault of the driver. All accidents are investigated by a company safety council.

The Coast Cities Railway Co. of Asbury Park, N. J., with 70 bus and passenger cars, presents gold stars or gold eagles for the cuff of the uniform of the driver who goes six consecutive months without an accident. All accidents are charged except where the truck is bumped at the rear while at a dead stop. Five gold stars may be traded for a gold eagle. A bonus of \$3 is paid to drivers of buses who drive 30 consecutive working days without a chargeable accident.

● Varied Gifts ●

The Capital Traction Co. of Washington, D. C., with 30 buses and 10 trucks, give careful attention to selection of drivers and competent supervision. To keep up safety interest, they divided their operators into ten men each and award cigars and a simple plaque monthly to the team with the best records. Every six months a safety dinner is given to the best team. A recent winning bus team chose, instead of a dinner, an electrically oper-

ated clock for their club headquarters.

The Equitable Auto Co. of Pittsburgh, which operates nearly 600 passenger cars, trucks and motorcycles, does not have any bonus system or financial awards for safe driving, but they do give special honor license cards to no-accident drivers.

The Los Angeles Gas & Electric Corp., with more than 500 trucks and small cars, allows one extra day of vacation to drivers with no accidents charged against them.

A San Francisco oil company with 900 delivery trucks and passenger cars scattered over the entire Pacific Coast has a difficult problem in that a large number of privately owned vehicles are operated for company purposes. All drivers are given to understand that their chances for advancement depend to a considerable degree on their accident records, and although there is no bonus recognition for safety driving, at the time of promotion a considerable amount of publicity is given to the fact that the safety record of the driver had a bearing in his advancement. When accidents result from carelessness or laxity on the part of drivers, they are sometimes penalized by a lay-off or a demotion to a vehicle on which the rate of pay is lower.

● \$1 a Month ●

The Liberty Baking Corp. of New York City, with 300 trucks for delivery of bread in 22 territories, has a safety certificate and coupon plan which may be termed a bonus arrangement. A salesman who drives through a month without an accident receives a coupon and \$1. If at the end of the year he can show 12 coupons, he then receives a safety certificate. "It might interest you to know," writes an official of the company, "that for January and February of 1929 we had 63 accidents at our 22 bakeries. For the same period of 1930 we had 39 accidents, and this year only 22 accidents."

Wilson & Co., meat packers of Chicago, with about 1000 motor vehicles, has a local trial board which investigates all accidents and fixes responsibilities. They have a safe-driver award plan which gives to a driver with a three months' no-accident record a radiator safe-driver's emblem. For one year a radiator honor award emblem is given, together with a check for \$25. Recently such awards and checks were presented at a dinner by a high official of the company. An executive of the company reports: "While it is a continuous program that requires considerable attention for the

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For the Boys in the Back
Room and the Men Who
Work in Glass Cages

MAINTENANCE CHATTER

HARD STARTING

HARD starting in winter may be due to spark plug gaps being too wide. With a heavy drain on the battery caused by winding over a stiff engine the current flowing to the distributor is reduced. Less current makes less spark, if the gap is too wide there may be no spark at all.

Everyone will agree with this statement but not all will admit that a few thousandths of an inch in plug gap makes much difference. Just the difference between starting and not starting, according to Frank B. Killian, chief automotive engineer, Vacuum Oil Co. He tells of experiments in which an engine started without difficulty with the thermometer below zero with spark plug gaps at .025 in., but the engine could not be started at all under the same conditions with gaps at .032 in.

The number of spark plugs in use with gaps .007 in. more than normal placed end to end—write your own estimate.

OIL TAPS

SOME form of lubrication is required for practically all forms of tapping. Cast iron requires a lubricant, a heavy mineral or animal oil. Aluminum tapping requires a very light oil, such as kerosene. These suggestions are selected from others in the "Tap Manual," a pamphlet issued by Morse Twist Drill & Machine Co., New Bedford, Mass.

FAN POWER

NO one knows how much power is taken by a cooling fan in operation on the road. Thus daringly spoke A. D. Gardner, Automotive Fan & Bearing Co., before a roomful of engineers at the summer meeting of the S.A.E.

A well-known fleet operator said, privately, that it was a good thing they didn't, because he had found out that fans on his vehicles used up 15 hp., which is about equal to the power output of the old Ford T running on three.

CHEVROLET

THE thermogage which is standard equipment on Independence model trucks may be installed on previous six-cylinder models in place of the heat indicator which is not available for service.

Gage and all parts needed for installation are sold in a unit package listing at \$2.50.

PIERCE-ARROW

VALVE tappet clearance on Pierce-Arrow models PT, PW, PX, PY and PZ should be .010 on inlets and 0.16 in. on exhaust valves with engine hot. Distributor point gap is .018, spark plug gap .025 in. Ignition timing: points just open on T.D.C., which is marked on flywheel, with spark fully retarded.

SHEET METAL WORK

THE Stanley Works, New Britain, Conn., has issued a manual of body and fender repair work which contains an illustrated description of approved methods of repairing and straightening fenders, bodies, as well as removing glass.

STARTING CURRENT

HOW long does it take a generator to make up the loss of charge of a battery resulting from an ordinary start?

One-half hour? One hour?

Three minutes is the correct answer, according to L. E. Lighton, Electric Storage Battery Co., Philadelphia.



ARC WELDING

CRACKS in water jackets can be closed without actually welding the crack by the arc welding process, according to "Operator's Stabilizer," Lincoln Electric Co. Pads are welded on both sides of the crack as closely as possible, leaving the crack and pads open. This welding is done slowly to reduce heating effect on the cylinder wall. Then dress the pads evenly and seal the space with a light bead, welding as quickly as possible.

DODGE

RUNNING a carpenter's pencil along a felt glass run channel will overcome sticking or binding of door window glass, according to service bulletin of Dodge Brothers. The pencil graphite acts as a lubricant for the glass edge.

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FIRST TRUCK 12 BY AMERICAN-LA FRANCE

Vertical V Engine With 4 x 5 in. Cylinders Set at 30 Degrees in Single Block Develops 245 Hp. at 2800 R. P. M.

FOUR ignition distributors, two carburetors, twenty-four spark plugs, one camshaft, one cylinder block, two cylinder heads, dry cylinder sleeves, 754 cu. in. and 245 horses—all these and many more interesting things are incorporated in the American-LaFrance and Foamite Corp. Vertical V-12 engine, the truck fields' first twelve.

Two banks of six cylinders are placed at the narrow angle of 30 deg. and all are included in one cylinder block. A single overhead camshaft operates 24 valves by rocker arms. There are two carburetors, one for each set of six cylinders, two exhaust manifolds, two cylinder heads with horizontal lower faces and each of the distributors fires three cylinders, with two plugs in each.

The block is of chrome nickel iron and bores are fitted with dry chrome nickel-iron sleeves pressed into place. Bores are staggered, from one side to the other, to accommodate the side-by-side connecting rods.

The counterbalanced crankshaft is mounted in four bearings. Between first and second and fifth and sixth crankpins are nitralloy worm gears which drive the ignition distributors and oil pump. Main bearings are bronze babbitt lined, dowelled to crankcase. No shims are used and the manufacturer reports that 4000 hours operation in pumping service shows no appreciable wear.

Connecting rods are tubular, machined all over and rifle drilled for lubrication of piston pins. Pin bearings are of bronze with lower end bearings cast centrifugally.

Aluminum pistons have four rings, the

upper a conventional compression ring, the others are of oil control type. The ring grooves of the lower and the second ring are only .005 in. deeper than ring thickness and the trapped oil acts as a slap cushion. The third ring has .032 in. clearance behind it and this space is drained.

Valve gear comprises two sets of twelve valves, as for two six-cylinder engines, and one camshaft with 24 cams. Rocker arms and valves are interchangeable. Valve springs are double. Rocker arm clearance is adjusted by a set screw which forces the lower part of the split end of the arm toward the valve stem.

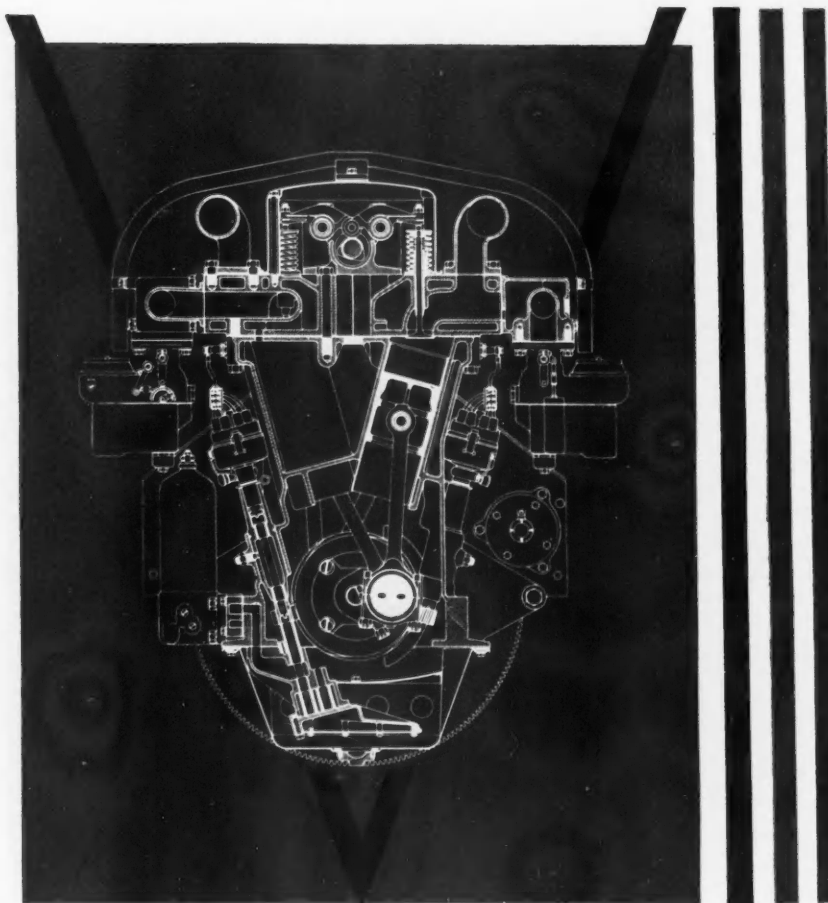
Camshaft drive is by silent chain with two idlers mounted on a sliding plate together with the water pump

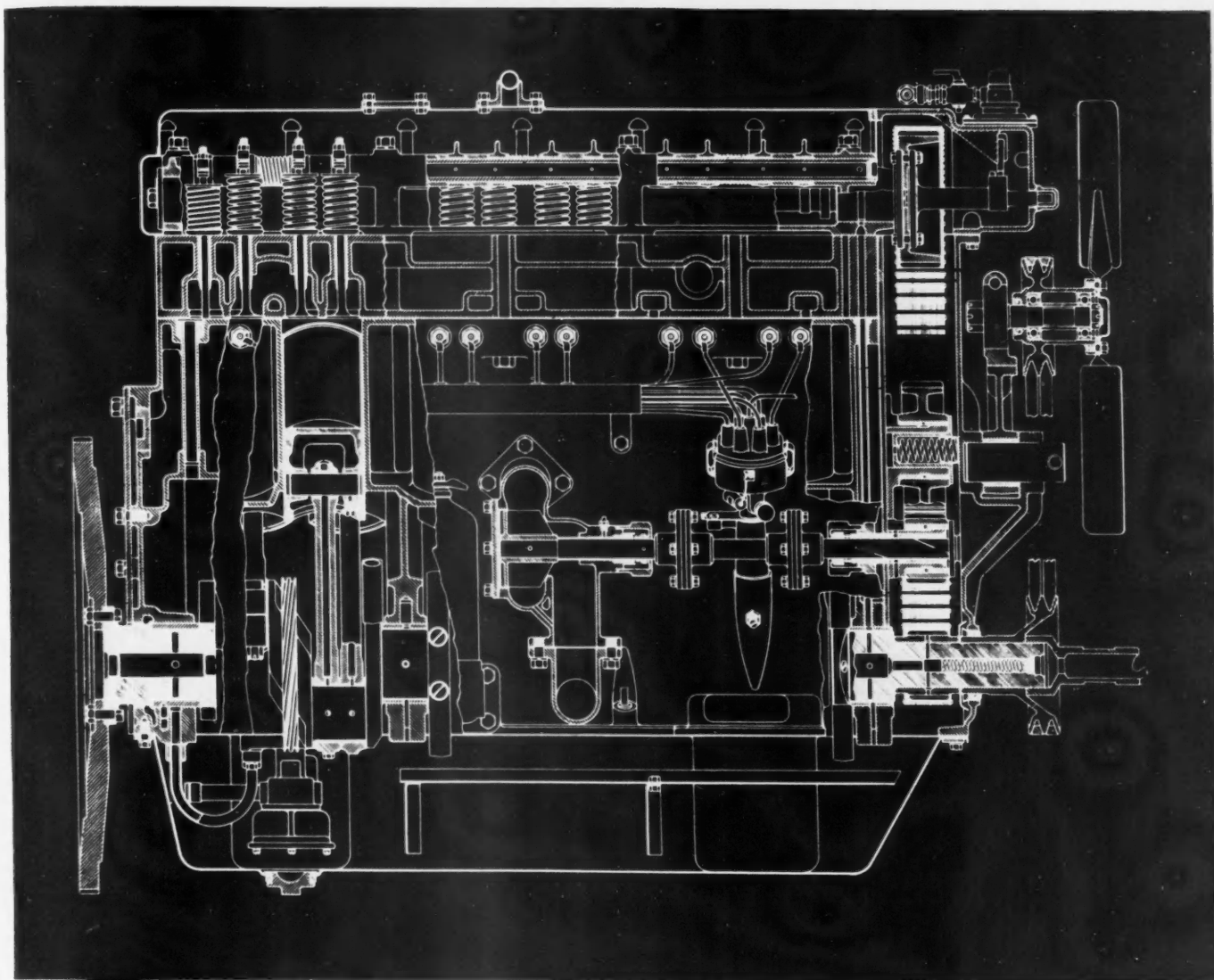
drive sprocket. Moving the two idlers at the same time does not change valve timing.

The oil pump is driven from the left front distributor shaft. Oil passes through a screen and filters, thence to rear main bearing and the crankshaft. At the front of the shaft a valve reduces pressure from 50 to 35 lb. and oil then passes to the crankshaft sprocket, thence to the timing chain and through a passage to the camshaft and rocker arms.

Two carburetors are bolted to identical manifolds, one for each set of six cylinders. A small portion of the exhaust is led through a passage to a box section at the

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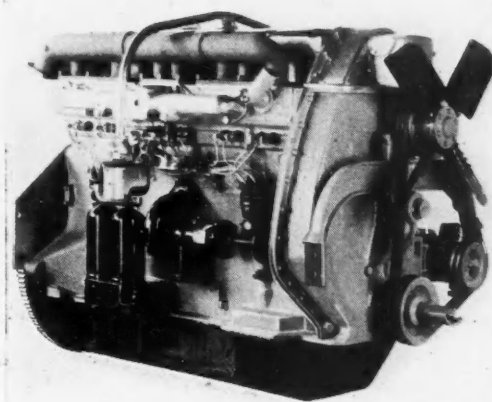
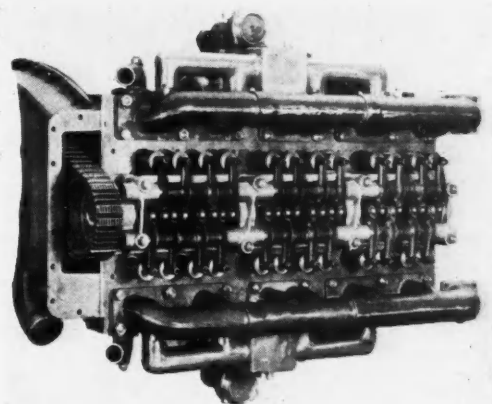


Above: The overhead camshaft operates 24 valves through rocker arms. One of four ignition distributors is shown above pump driveshaft

At left: Inclined cylinder bores and horizontal heads results in wedge-shaped combustion chambers

At right above: All valves are operated by rocker arms from a single camshaft with four bearings in an aluminum housing

At right: Front end suspension is arranged for a bridge cross member with horizontal pin connection. Three part exhaust manifolds extend upward from tops of cylinder heads



20-TON REPUBLIC

The industry's first
12-cylinder truck



THE "Highway Mogul," a 20-ton, 240 hp. 12-cylinder truck is announced by the LaFrance-Republic Corp. of Alma, Mich. Designed for fast hauling of freight, the truck is said to be capable of developing a speed of around 60 m.p.h. in high gear with a 6 to 1 axle ratio, and a speed of 32 m.p.h. in second.

Its powerplant consists of an American-LaFrance 12-cylinder engine described on page 36 of this issue; a Long model 34A two plate, 14 in. clutch, and a Brown-Lipe model 714 four-speed transmission mounted in unit with the engine.

An unusual feature of the Highway Mogul, or Model Q, is that the six-wheel Timken unit, which is available in either worm or double reduction drive, is mounted directly to the frame on trunnions without intermediate springs. Road irregularities with the loaded truck are absorbed by the tires, large diameter low pressure tires being used. Elimination of the springs in large six-wheel units has a number of advantages. It enables the truck designer to either increase his frame width, or his tire size, or both, and still remain within the 96 in. legal limitations. With

a six-wheel unit, of course, the shock to which loads are subjected is considerably less than with a single axle design, and vertical displacement of the frame is also cut in two. The elimination of the springs also results, of course, in a considerable reduction in weight.

To operate the air brakes with which the truck is equipped, a Westinghouse air compressor is mounted on the engine, and is lubricated directly from the engine oil pump. 17¼ in. brake drums are used on all six wheels, supplemented by a double shoe 16 in. Tru-Stop disk brake on the driveshaft.

The truck is also available with two-wheel equipment at the rear, in which case 60 x 4 in. rear springs and 21 x 5½ in. rear brake drums are used. Frames in either case are of heat-treated alloy steel with 12 in. max. depth side rails, tapering to 9 in. at the front and 8 in. at the rear end. Both top and bottom flanges are 3½ in. wide, and the frame is provided with numerous reinforcements both inside and outside.

An inter-axle differential is used with the six-wheel type of design.

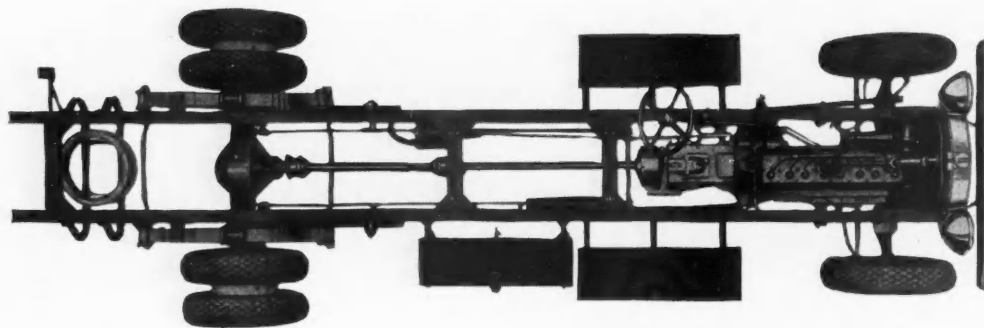
STEWART "8"

THE Stewart Motor Corp. announced the production of its new 8 in-line, a 3-ton chassis, Model 48-8, listing at \$2,990. This new eight, capable of 50 m.p.h., was designed for long distance movers, haulers and all type of work demanding high speeds. It is offered in three wheelbases, namely, 150, 160, and 170 in. and in longer wheelbases of 180, 196, 226 and 241 in. at extra cost.

The engine is a Lycoming AE eight with a bore and stroke of 3¼ x 4¾ capable of developing 130 hp. Piston displacement is 420 cu. in. Starting, lighting and ignition are provided by Delco-Remy and carburetion by Stromberg. Mounted in unit with the engine is a Brown-Lipe disk clutch and a four-speed Brown-Lipe transmission. Final

drive is through a spiral bevel Clark axle with a standard gear ratio of 7.12 to 1.

Service brakes are Bendix Duo Servo four-wheel, mechanically operated by rods on the rear and by cable on front. They are amplified by a B-K vacuum booster. The parking brake is of the external type mounted on the driveshaft flange at rear of transmission. The high carbon steel 9 x 9/32 in. frame is supported by 56 x 3-in. springs in the rear and 40 x 3 in. in front. Six-leaf auxiliary springs are standard. Wheels are cast steel hollow spoke type fitted with 8.25/20 balloons all around with dual rears. Standard equipment includes front bumper, spare tire carrier, air cleaner, thermostat, wipers, etc.



Model 48-8 Stewart lists at \$2,990

HEAVY DUTY MACCAR



Rear axles are mounted without springs

A SPRINGLESS type of mounting and suspension is incorporated in the four-wheel-drive six-wheeler shown above. The rear unit was developed by O. F. Quartullo, president Maccar-Pittsburgh Truck Co., Pittsburgh, Pa. Eliminating rear springs, shackles, brackets, radius rods and similar parts brings about a saving of approximately one ton, according to the designer.

An inter-axle differential is employed and a feature of the design is the reduction of angle in the universal joints in the shaft connecting the two rear axles. Short radius rods are attached to each axle by heavy arms and ball and socket joints. The rods are not horizontal but extend at a considerable angle downward toward the other mounting point. The effect of this construction is to keep the axles more nearly in line while going over constructions.

Rear axle housings are attached to walking beams, one on each side of the frame, by means of ball and socket

joints, giving freedom of movement in all directions. Walking beams are trunnion-mounted on a cross tube and two frame brackets. A tubular frame cross member is placed at the bracket point. Elimination of springs in the construction reduces overall width of the truck at this point.

The truck, which was built in the Maccar plant, incorporates a Sterling Petrel, $5\frac{1}{4}$ x 6 in. six-cylinder engine and a seven-speed transmission. The latter is mounted at three points with the third point free to slide sideways on a tube, thus relieving strain on the case in rough going.

Westinghouse air brakes are installed on all three axles operating 1 in. blocks against Gunite drums. Tires are 11.25 balloons, single in front and dual rears. It is the cushioning effect of these tires and the equalization of load and impacts by the rear axle assembly unit that make it not only possible, but desirable, to eliminate rear springs, according to designer.

G.M.T. 1½ TON

WITH a price range of \$595 to \$665 for the 1½ to 2-ton T-18, General Motors Truck Company's newest offering is the lowest priced truck ever produced by this company. Powered with the same six-cylinder 60 hp. powerplant as the T-19 and the former T-17, the truck is made available in two wheelbases, 131 and 157 in., permitting 9 to 12 ft. body lengths.

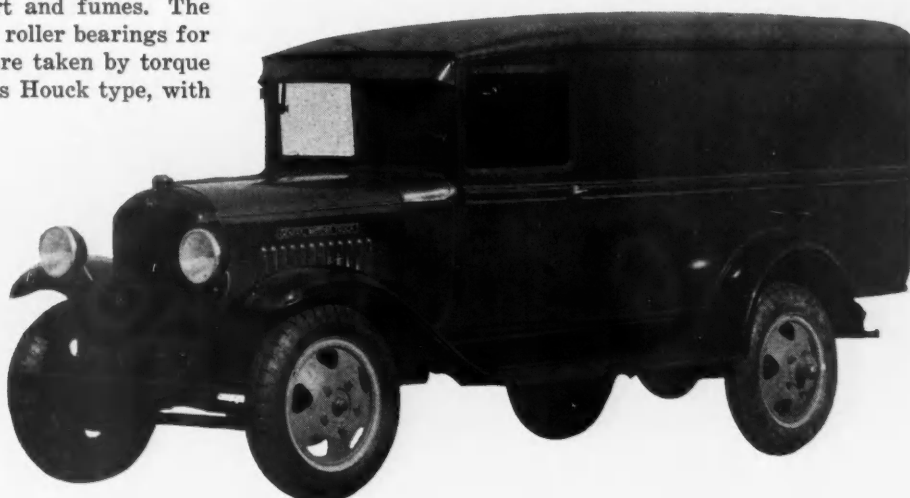
The truck has been designed to take the line of bodies now produced and distributed nationally by Chevrolet's commercial body division.

General specifications of the truck appear in the specification section. The engine is supported at three points, with one mounting at the front and two at the rear. A suction type crankcase ventilator, an air cleaner, and fuel strainer provide protection against dirt and fumes. The worm type steering gear is mounted on roller bearings for easy handling, torque and propulsion are taken by torque tube. Brakes are of the General Motors Houck type, with

four shoes in the rear drums, two of which are operated through the hand lever. Service brakes are four-wheel mechanical, cable and rod operated. A feature on the new T-18 is the use of demountable Spokesteel wheels.

On the 157 in. wheelbase chassis two universal joints are used, the forward unit at the transmission and the rear universal carried at the front of the torque tube, supported in ball bearings on a frame cross member. Clutch release bearings are of the ball type.

Instrument panels are indirectly illuminated and equipped with electric dash gas gage and water temperature indicator in addition to the usual instruments. All electric wiring is protected by flexible conduits.



G.M.T.-18 lists from \$595 to \$665

BEVEL GEARS DRIVE FEDERAL'S NEW TANDEM SIX-WHEELERS

Offered With 4 or 6-Cylinder
Engine at \$1,350 and \$1,450

FEDERAL MOTOR TRUCK CO. in using bevel-gear dual drive tandem rear axles in its two new three-ton six-wheelers, listing at the low price of \$1,350 for the 4-cylinder D2D and \$1,450 for the six-cylinder E2D, has introduced something entirely new in axle design. Instead of the more usual worm or double reduction type of tandem axle, permitting an extension of the pinion shaft over the differential gears of the leading axle, Federal uses a bevel gear type of reduction with two identical pinions and pinion shaft in the former unit, the rear pinion taking the drive for the rear propeller shaft directly from the ring gear, in turn driven by the forward pinion. The two pinion shafts are not in a straight line in order that the short propeller shaft between the two axles could be maintained horizontally with smaller angular motions at the universal joints. Axle parts are standard, and to some extent duplicated in the two axles. The

Federal's new 3-ton six-wheeler comes with a four or six-cylinder engine. The corner views show the new four-wheel drive tandem rear. Drive to both axles is through bevel gears in manner shown

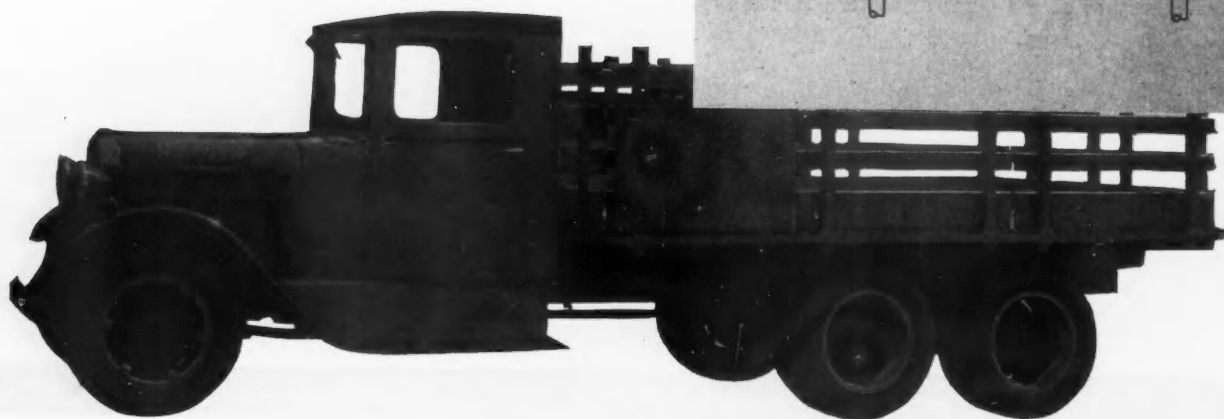
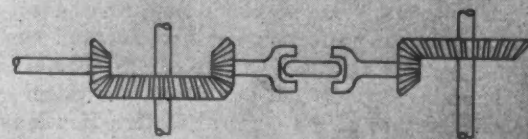
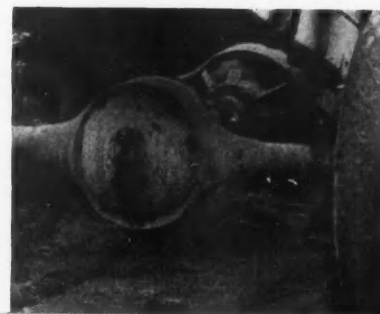
design was developed by Federal with the assistance of the Clark Equipment Co.

In the actual construction the front axle unit, which is of the banjo type, has two interchangeable covers carrying interchangeable pinion shafts meshing with the ring gear—one in front and one in back. Since the rear pinion shaft turns in the opposite direction from the forward pinion, the ring gear in the rear axle of the tandem unit is on the right side of the axle housing, instead of the left, as in the forward axle. While a larger differential unit is used in the forward axle of the six-wheel unit, this does not produce excessive tire wear due to scuffing and side-slip in going around turns. Federal engineers state that the arrangement of the spring suspension in the tandem unit is responsible. It will be remembered that in the Federal type of suspension there are two springs on either side, one above and one below the axles, attached at the center to forked bearing brackets mounted on short trunnion shaft supported from the

frame side rail. These springs take both torque and propulsion, no radius rods being used. The upper spring on one side is shackled at the forward end, while the lower spring on the other side is shackled at the rear. With this construction there is provided not only considerable flexibility in the tandem unit, but it is claimed also that there is a natural tendency for the axles or wheels to "track" each other when rounding curves.

The only change in the spring suspension is the shackling of one lower spring and one upper instead of both upper springs. In the case of the dual drive unit also

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REO OFFERS VOCATIONALIZED BODY LINE FOR 1½ TONNER

FOLLOWING with the introduction of the new series of 1½ ton Reo Speedwagons, described in the June issue of the *COMMERCIAL CAR JOURNAL*, came the announcement of vocationalized bodies for that chassis based on an investigation of 31 of the most important vocations.

As a result of this investigation, Reo is now prepared to supply special bodies for practically all types of hauling and transportation work and at a saving of time to the truck owner. The new line of bodies are designed, not only to fit the businesses for which they are intended but the chassis as well. Because of this, better load distribution or balance is obtained for each chassis length, it is said, as the center of

the load, in each case is placed the correct distance in front of the rear axle. Improved handling and increased tire mileage, of course, are accompanying advantages.

The special vocationalized bodies are offered in addition to the conventional line of bodies such as stake, dump, panel, etc. As an example of the completeness of the vocationalized line, bodies are now available for such businesses as laundries, meat provisioners, dairies, bakeries, etc.

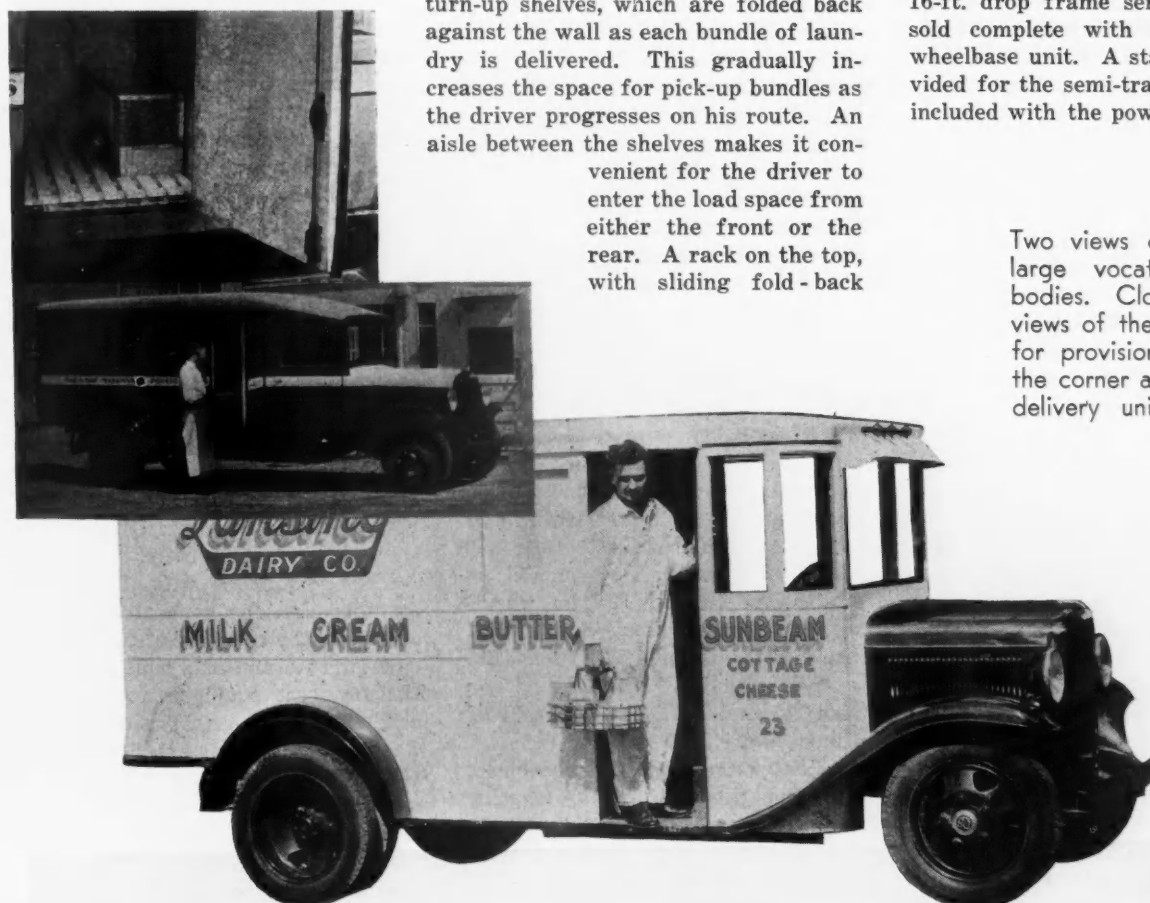
A description of a few of these units will indicate generally the specialized character of the line and will undoubtedly be of interest. The laundry body is arranged with a series of individual turn-up shelves, which are folded back against the wall as each bundle of laundry is delivered. This gradually increases the space for pick-up bundles as the driver progresses on his route. An aisle between the shelves makes it convenient for the driver to enter the load space from either the front or the rear. A rack on the top, with sliding fold-back

canvas top gives additional storage space.

The refrigerator body designed to meet meat transportation needs is another example of what Reo has done to meet specialized haulage problems. The body is insulated throughout with a Dry-Zero blanket and is equipped with a staggered post and sill construction which is said to reduce temperature losses to a minimum. A non-corroding metal lines the interior, which besides preventing moisture from entering the insulation between the interior and exterior walls serves as a substantial wear surface. In addition to two back doors, a curb side door is provided. All doors are of the refrigerator type.

Of possibly particular interest is the 16-ft. drop frame semi-trailer which is sold complete with the 1½-ton short wheelbase unit. A stake body is provided for the semi-trailer, while a cab is included with the power unit.

Two views of Reo's new and large vocationalized line of bodies. Close-up and exterior views of the refrigerator body for provisioners are shown in the corner and a low-floor milk delivery unit at the bottom



DEALERS HOLD CARDS TO WIN BUSINESS

CONTINUED FROM PAGE 16

unproductive time of the storekeepers of the service station is spread over many times the number of vehicles owned by the fleet operator. The objection that a lot of time is lost in traveling between the fleet garage and the dealer shop can be effectively countered by explaining that a call on the telephone will result in the immediate call for or delivery of a vehicle. Also that drivers can deliver their trucks at any desired time in the morning at the fleet operator's garage.

The two other very fundamental requirements, mentioned previously, that the operator expects of the service station and which the latter should offer are workmanship and cooperation.

The handling of fleet repairs on an economic basis is not enough. Operators want their equipment to receive the same careful attention and workmanship from service stations that they themselves accord it. Workmanship is vital, and quality should not be sacrificed. Cost of service should be based on a guaranteed maximum-cost agreement for various unit repairs. Under this plan the operator is billed for labor and material as actually occurs on each job, plus overhead, up to the maximum cost agreement. Flat rate system should not be employed.

Contact with fleet operators should be maintained not only to assure harmonious relations and to quickly settle the little differences that constantly crop up, but, more important still, to get the operator's slant on service. A clear conception of the operator's viewpoint is highly important. Fleet operators think many service stations work in extra operations at every opportunity. Such viewpoints must be corrected.

When a fleet operator sends in his vehicle for a stated repair operation it covers a trouble diagnosed by his own qualified inspectors. Service station inspectors should either concur in this diagnosis or, before the job is started, confer with the fleet inspectors and come to an understanding. Working in needless extra jobs is out. Through such close working together the various replacement policies of different fleet operators can be met. For example, when a unit is opened up for repairs, one fleet may require that only those parts should be replaced which actually require replacement, and that the number of parts replaced in a truck to be kept in service only a short time will be less than those in a truck to be used four years.

Replacement of parts leads into the

last important card in the dealer's or branch's hand, factory help. Replacement of parts should be decided on engineering information furnished by the manufacturer as to the expected life after one-thousandths or two-thousandths, etc., wear has taken place. It should not be difficult to determine the life of an individual part, but as yet very few manufacturers have done anything along this line. Manufacturers can also help by having on their factory staffs former competent fleet operators or superintendents to represent the factory staff relations with dealer and branch service stations. These men have the viewpoint of the fleet operator customer, not only as regards service but also new vehicle sales and act in the capacity of consultants. They should be at the beck and call of any fleet operator who is experiencing difficulties in service station repairs or other troubles incidental to the operation of his vehicles. Dealers and branches can also solicit the aid of manufacturers in outlining sales campaigns to secure fleet repair work, such as methods to be followed in fleet repair work and in establishing a system of follow-up for observation on work done.

BEVEL GEARS DRIVE FEDERAL'S NEW TANDEM

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there is an offset in the spring mounting since it is desired to equalize tractive effort on both axles of the unit. The shorter offset portion of the springs are located at the front, thus throwing the greater load on the front driving axle to offset the tendency of the front axle to lift off the ground due to the driving torque reaction.

Except for dual-drive tandem axles these two new Federal models follow quite closely the two six-wheelers introduced in January of this year. The features claimed for the new models, however, include low price, lower unsprung weight, increased load-carrying and tractive capacity, reduction of vertical motion for better riding and six-wheel hydraulic brakes.

The four-cylinder D2D model is available in 140 and 164 in. wheelbases, the former taking 9 to 10 ft. bodies and the latter 12-13 ft. bodies. The same size bodies are called for by the 145 and 169 in. wheelbases of the six-cylinder E2D model.

Specifications except for wheelbase, frame and propeller shaft lengths, etc., and the axle unit, are the same as for the D2 and E6 models carried in the specification tables, page 61.

SAFETY REWARDS! CASH, HONORS OR NOTHING?

CONTINUED FROM PAGE 34

follow-through details, we believe we are making progress and that the time taken is well worth the effort."

The Studebaker Corp. of South Bend, Ind., gives no bonuses, but they do present gold stars to their 75 truck drivers with no-accident records.

The Tidewater Oil Co. of New York City issues merit cards to the 300 operators with three months of no-accident driving, but no bonus awards.

The Schulze Baking Co., Kansas City, with about 500 trucks, has started in one of their plants a plan to give all drivers a safety star. If the driver has a chargeable accident, he loses his star, but if he keeps his star for six months, he is awarded \$5.

An Oklahoma transportation company with a total of 53 buses gives a silver star for three months without an accident and a gold star for six months without an accident. About a year ago they discontinued the bonus payment of \$10 for each month of driving without an accident or a road failure.

The Shell Oil Co. of San Francisco, for their central division of about 1000 trucks and cars, gives bronze pocket pieces for one year free from accidents, silver pieces for two years, and gold pieces for three years. They do not award cash bonuses.

The Paine Lumber Co., Ltd., Oshkosh, Wis., gives a radiator medallion to all truck drivers who complete five years without an accident. An official of the company reports that "our truck safety problem is insignificant. We have had eight minor accidents in 12 years. All of our drivers have certificates for safety, showing as high as 12 years."

The California Consumers Co. of Los Angeles has for its 700 truck drivers a demerit system whereby type, time and severity of accidents is classified. A maximum of 10 demerits in any 12 months requires a consideration of the dismissal of the employee. "So far," reports a company official, "the demerit system has worked very successfully."

The question of what is the most suitable plan for general adoption to stimulate the commercial car driver to greater safety efforts has been one of the foremost problems to be considered by the Delivery, Taxicab and Bus Section of the National Safety Council, of which T. A. Horrocks, secretary of the Minnesota Truck Owners Association, is general chairman, and which represents nearly 1000 member

TURN TO PAGE 48, PLEASE



A "BREAK"

There's no denying the fact that public acceptance of individual equipment is a "break" for car salesmen; saves them a lot of time and effort.

Public acceptance is a most potent reason why Lockheed Hydraulic Brakes have become a *definite policy* with many leading builders of cars, trucks and buses.

Specify "Hydraulics" and you travel with the current.

HYDRAULIC BRAKE COMPANY
DETROIT, MICHIGAN, U. S. A.

LOCKHEED HYDRAULIC

Four BRAKES *Wheel*



Cummins Diesel United

On his return from a coast-to-coast trip with one of his Diesel engines mounted in an Indiana truck chassis, C. L. Cummins, president of the Cummins Engine Co., said that additional units of the six-cylinder, 125 hp. are being produced, and after thorough testing will be available for the use of any truck manufacturer and that no exclusive license to manufacture and use the engine has been given to any outside organization.

Lacteal Delivery Costs

The cost of milk and dairy distribution takes about 11 to 12 cents out of every income dollar, which is about 11 times as high as that of the butcher, baker or grocer, according to a 16-month study covering all sections of the country conducted by the General Motors Truck Co. Therefore, as pointed out in the 28-page report, economical, profit-planned delivery in the milk field is an excellent means for increasing incomes.

Stoughton Goes Trailering

The Stoughton Co., formerly the Stoughton Wagon Co., is expanding into the field of manufacturing trailers and a general line of motor truck equipment. Charles R. Jahn, for several years sales manager of Highway Trailer, has joined the Stoughton Co. as general manager of the new division, which was organized more than a year ago and has been engaged in experimentation since that time.

N.A.C.C. Starts Hoovering

A. R. Erskine has been appointed chairman of a committee by the National Automobile Chamber of Commerce to represent that body in a study of the labor situation, and to seek additional information whereby motor manufacturers may relieve unemployment distress.

Planning to Bottle

The automotive industry will be well represented at the annual A.B.C.B. exposition in Dallas, Tex., Nov. 9 to 13. Space has been reserved by Anheuser-Busch, Chevrolet, Dodge, Ford, G.M.T., Highland, I.H.C., Mack, Weldmech and White.

Another Record Hop

A trans-continental truck and trailer run to test the practicability of regularly scheduled coast-to-coast truck freight service was successfully completed by the Southern Freight Lines, Ltd., California. The equipment consisted of a G.M.T. truck with

refrigerated body and a trailer carrying a maximum pay-load, largely of perishables. The run was from Los Angeles to New York and was completed in the total running time of 117 hours, an average speed of 27.35 m.p.h. Data obtained during the trip will be studied to determine costs.



Our Own Ear to the Ground Department

● A Philadelphia Ford dealer has taken a \$100 deposit on an order for an eight-cylinder Ford sedan "to be delivered about Oct. 15 and not to exceed by more than \$200 the price of the corresponding Model A sedan." Suit yourself whether this is significant or not. After all the dealer has nothing to lose.

● You're going to hear more about nitralloy. We saw a bushing coated with it that wore away the ridges of a file and actually cut glass. Such resistance to wear will be recognized. Wouldn't it be a good coating for cylinder walls? A manufacturer now experimenting with this idea may give you an answer before long.

● A trailer fifth-wheel device ingeniously mounted in rubber will soon appear on the market. It does away with shocks and bad jerks to such an extent that bus manufacturers ought to look into it as the possible answer to comfortable articulation of buses.

● Item in this department in June: "One truck manufacturer is planning to 'plate' valve seats with stellite. Stellite is a metal so hard that it can't be machined; it must be ground." The name, if you're curious, is White. The method of manufacture and application will be described shortly.

● One engine manufacturer has just completed a comprehensive survey of truck manufacturers and operators which reveals a decided demand for 12-cylinder powerplants. Keep yourself posted on 12-cylinder developments. Start now by reading the description on pages 36 and 37.

● You may soon see tires similar to those big, pillow-like airplane tires of extremely large air volume but low

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Ford Standrive Data

Ford's new house-to-house delivery truck, the Standrive, differs from the conventional Ford truck by a special frame dropping in the center to permit full head room in the driver's compartment, a special control system in which a single master pedal operates the clutch applied the service brake and locks service brake for parking and parking brakes and a special body built of steel panels over a hardwood frame. The capacity of the body is 42 cases.

To K.O. Truck Failures

To keep trucks in operation a maximum number of hours and reduce expensive lay-offs for repairs General Motors Truck Co. has instituted a new preventive maintenance policy for its distributing organization. Under the plan the operator pledges to send his trucks to a G.M.T. service station every 1000 miles or 30 days, the agreement covering six such services. Forty-four preventive maintenance operations are given in this service at a charge of \$2.50 each.

For Safety's Sake

More than 7000 listeners and 300 speakers will attend the twentieth annual safety congress and exposition which will meet in the Stevens Hotel, Chicago, from Oct. 12 to 16.

Visco-Meter Made Standard

The Visco-Meter, an instrument which measures viscosity of oil under actual operating conditions, has been adopted as standard equipment by LaFrance-Republic and by Gramm Motors, Inc., on all Gramm trucks and buses.

Divided We Fall

Truckmen of Memphis, Tenn., stirred by growing problems of taxation, legislation and rates, united for strength last month by forming the Tri-State Motor Truck Association.

From the Shore

At the A.E.R.A. Atlantic City Exhibit Mack displayed its hydraulic steering booster and General Motors its rear engine bus with quick removable powerplant.

Dean C. Babcock

Dean C. Babcock, 35, manager of divisional branch factories of the Four Wheel Drive Co., died late in September from effects of an emergency operation for appendicitis.

Thomas E. Reeder

Thomas E. Reeder, former president of the Federal Motor Truck Co., died late in September.

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Here's your answer to that trailer-brake question— **TIMKEN TRAILER AXLES**

Brakes are an engineering job, and *essential* on trailers. The new Timken Trailer Axles solve this problem.

They are correctly designed for all types of brakes; with correct brake mountings. Effective oil seals in hubs, and oil-slingers prevent excess hub lubricant from getting to the brakes.

Another feature! All brake parts, drums, bearings and wheel parts of the new Trailer Axles are *inter-changeable* with the same parts of

Timken Driving Axles—worm and bevel, of the same capacities. Saves time, labor and money in service and maintenance.

And the axles themselves—Timken quality; there's none better. Alloy steel is used, properly heat-treated; with spindles and bearing seats ground to close tolerances.

For a graphic picture of Timken's new line of trailer axles and its advantages to you, write for our literature.

THE TIMKEN-DETROIT AXLE COMPANY, Detroit, Michigan

TIMKEN AXLES



NEWS



THE OVERLOAD

A collection of items—interesting even when not news—and garaged here because there's no other place for such morsels.

The Iowa Way

You've got to give Iowa credit for one thing—it certainly plays no favorites when it comes to upholding its laws governing truck freight rates. They sock it to the shipper who tries to get a cut rate and to the truckman who gives it. Out in Sioux City a farmer was fined \$75 and costs for soliciting a favored hauling price. And 61 truckers were brought on the carpet for alleged slashing of rates. Truckers when convicted need not be surprised if they are fined \$75 and five days in the hoosegow. Penalizing the shipper is a nifty idea. It eliminates the worst temptation truckers have had.

With a Collar, Too

On the final day of the annual Society of Automotive Engineers' Transportation Meeting in Washington the latter part of this month, engineers and fleet operators will meet President Hoover. It's our suggestion that if they want the President to feel strictly at home they should elect one to yell, during a lull in exchange of pleasantries: "We want beer!"

Just an Aperitif

Fruit cocktail, appetizers, onion soup au gratin, filet mignon a la francaise, brussels sprouts, potatoes julienne, hearts of lettuce with roquefort cheese dressing, green apple pie a la mode, coffee. By these signs know ye all that Ted Preble, of Pierce-Arrow, came through like a French gourmand on that meal we've been talking about so hungrily. After we had polished off the crumbs Ted tipped back in his chair and declaimed grandly: "This was just an appetizer; some day I'll buy you a dinner!"

A Nifty

Art Scaife, field engineer of White, is in our opinion (and he'll probably be surprised to know this) one of the drollest wits in the truck industry. He cracks funnies with an immobile visage that denotes the true humorist. We have held this opinion for some time but said nothing about it until the other day we heard him tell a group of engineers and operators that we've "been winching trucks over the hills long enough" and that "what we need are more powerful engines."

A Historical Moment



We witnessed a phenomenon at an S.A.E. committee meeting in Atlantic City. Jack Winchester, Standard Oil of New Jersey, and Pierre Schon, General Motors truck sales engineer, agreed with one another during a discussion. You won't appreciate this unless you've at-

Charles R. Jahn, Manager of Stoughton Equipment Division

tended S.A.E. transportation meetings. If Merle Horine, sales promoting for Mack, had been there to agree with them it would have made another triple entente.

Up in the North Countree

Clintonville, Wis., is a long way from Philadelphia, but we made the trip last month and gave the FWD plant a thorough inspection. W. M. Hanson, advertising manager, and F. M. Higgins, research manager, acted as cicerones (guides to you stupies) and did their work well. James Sornson, metallurgist, showed us things in the laboratory which were convincing evidence that although FWD is very much in the woods, it isn't in the dark. And R. H. Schmidt filled perfectly our conception of the sort of sales manager FWD should have. At present he is working to penetrate deeply in the motor freight market. And he expects some of the manufacturers of conventional trucks to step into the four-wheel-drive field one of these days. In fact, he'd like to welcome them.

Peeping in Stoughton

Out in Stoughton, Wis., we visited the Stoughton Wagon Works, were royally welcomed by President F. J. Veal, and were permitted to see the new idea in trailer fifth-wheels developed. We took away a very favorable impression of the invention and of Mr. Veal's genial nature.

A Nose Tilter

H. D. MacDonald, engineering department, International Harvester Co., writes: "Twenty-five years ago the IHC company incorporated the free-wheeling principle in what was called its auto buggy. The transmission consisted of a constant mesh gear set in which were located internal driving dogs and these ratchet dogs were in reality over-running clutches." So the passenger car industry needn't get snooty. The truck industry had free wheeling long ago and canned it for some of the very reasons that are being advanced against the idea today.

A Biographical Note

In case you don't know, Howard Edwards, of the Edwards Iron Works, maker of trailers and operating practically as the special truck equipment division of Studebaker, is a former football captain of Notre Dame, a South Bend school which sometimes finds its way into newspaper sports sections and radio broadcasts. Those who know him well call him "Cap." He still looks like an athlete. He and Knute Rockne were cronies.

A Curio Note

Not until recently did we learn that M. L. Pulcher, president of Federal, is a collector of rare violins. That ought to get out of some people's heads the idea that you can't be a trucker and esthetic at the same time.

A Musical Note

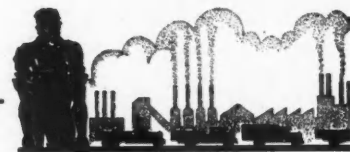
Here's another for your album. Tom Snyder, secretary-treasurer of the Truck Association Executives of America and general manager of Central Union Terminals of Indianapolis, is a nifty performer on the ocarina, known also as the musical sweet-potato. We like the mellow, romantic notes of the ocarina, and we don't care what you think of us. Ocarina-playing had a vogue in Indianapolis years ago. The Masonic lodge there even had an ocarina band. Tom was a member. Was it an E flat or a B flat you played, Tom?

Four-Wheel Driving at 60

Art Herrington, president of the Marmon-Herrington company, took us for a ride in his 3-ton four-wheel-drive jobs, and we mean a ride. Up grades that looked perpendicular, down grades that seemed like the side of a cliff, and over the road at 60 m.p.h. We said 60, sir. And Art says it has done 63. It's a truck, lads, that's a credit to the industry. By the way, Art checked with everything that Mr. Tilt of Diamond T had to say in the September President's Page.—G. T. H.

Classified Section

Wanted: A couple of S.A.E. slide-rule experts to VGW the growing overload of The Overload—Managing Editor.



Our Own Ear to the Ground Department

CONTINUED FROM PAGE 44

pressures in use on trucks. Experimental applications are now being made. The tire is already in use on tractors. Pressures of only 10 to 20 lb. are required. Experiments have been going for three years. In the truck application changes were necessary on brakes, elimination of wheels and revamping the steering gear to hydraulic operation. Mileages up to 40,000 already have been secured.

● Truck bodies much lighter and stronger than present-day aluminum bodies are due to appear within a year. They will be made of shaped aluminum alloy sheets and tubing, engineered like an airplane fuselage, and will carry airplane type seats.

● The Merchant Truckmen's Bureau of New York has abandoned its truck poster advertising plan. Only 17 contracts were signed. Tom Barry says he hears from mid-western haulers that because of the weight of the signs they can make more money by hauling that weight in freight.



PROSPERITY NOTES

\$ Two shifts of employees for overtime production have been put on by the Fremont Metal Body Co. and officials of the company predict that this schedule will continue through October.

\$ Reports from Detroit indicate that the Ford employment curve will reach a new high peak for the year shortly at the rate new hands are being placed.

\$ August sales of Diamond T Motor Car Co. were 20 per cent ahead of the same month last year.

\$ Spicer Mfg. Corp. has declared a regular dividend of 75 cents on \$3 preferred stock.

\$ An increase of 47 per cent in sales of tires to dealers in the first seven months of this year over the corresponding period of 1930 is reported by the Seiberling Rubber Co.

\$ The Four Wheel Drive Co., has declared a regular semi-annual 3 per cent cash dividend.

\$ Available truck sales for the months of July and August topped every other July and August record in the history of the company, says E. R. Burley, secretary.

NEWS



\$ Net earnings of Perfect Circle Co. for first eight months of 1931 after all charges was \$675,456, which is an increase of \$192,919 over the same period last year.

\$ Return to full time working schedule for all employees was announced by Dunlop Tire & Rubber, Buffalo.

\$ Through an increase of 698 new dealers since January, the Willys-Overland Co., has raised its retail outlets to a total of 3385.

\$ Dividends paid by automotive manufacturers amounted to \$6,343,000, according to the Standard Statistics Co.

\$ A net profit of \$126,009 is reported for year ended June 30 by Sparks-Withington-Jackson, Mich.

\$ For the fifth consecutive month Studebaker-Pierce-Arrow Export Corp. showed an increase over corresponding month last year in shipments. August this year exceeded August last year by 55 per cent.

\$ Reo has added 339 new dealers since July 1, according to E. G. Poxson, general sales manager.

\$ Dodge Brothers dealer organization has been enlarged by 226 new units added during July and August.

\$ Sales of the Parker Rust-Proof Co. in the first eight months of 1931 were 40 per cent greater than the corresponding period of 1930.

\$ A quarterly dividend of \$1 on common and \$1.75 on preferred stock has been declared by Electric Auto-Lite.

\$ September shipments of the Reo Motor Car Co. totaled 1205 units, compared with 1137 for August.



CAUGHT IN QUOTES

Monopoly? Just a Scare!

●A. J. BROSSAU, PRESIDENT, MACK TRUCK CO.—“History records that the railroads were regulated because they had a monopoly and because the public interest was abused by that monopoly. The situation which presents itself in motor transport is entirely different. Assuming that it were possible legally to evade the constitutional right to private contract, neither the common carrier truck nor the contract vehicle can have a monopoly of the road. At all times the private shipper can step into the

market, buy a second-hand vehicle and transport his own goods. The only effect, then, of regulation of common and contract trucks is to increase the costs of operation of these vehicles. The business does not go back to the railroad because the railroad is not equipped to give the particular type of service. The shipper has to pay the higher rates or go into the trucking business himself.” (From article in National Sphere.)

Youthful Elixir

●PAUL T. CHERINGTON—“It is time many of the leaders of the past two decades became staff advisors. . . . If every big business in the country were suddenly to put control of, and responsibility for, all its line operations into the hands of competent men under 40, business would revive with startling suddenness; and if they were all under 35, our only trouble would be in keeping it from running away.” (At Boston on Retail Distribution.)

Gen. Business Due for Ride

●MERLE THORPE, EDITOR, NATION'S BUSINESS—“Too many of us are watching and waiting for General Business to appear and dispense increased business activity to each individual. We forget that General Business is made up of, not the big boys on the stock exchange, but the 447,000 smaller corporations and the 5,000,000 firms, partnerships and one-man shops of the country. If the individual business man would start in tomorrow to increase his own particular business activity, to be content to build a brick at a time on what he now has, why, in 60 days the country would feel the stimulus, and in six months old General Business would come galloping down Main Street announcing restored business activity. It is not a question of General Business coming back, but of bringing it back.”

Automotive Flashes

CONTINUED FROM PAGE 44

General Buys "Trublpruf"

The General Tire and Rubber Co. purchased all patents, molds and sales rights of the Lambert "Trublpruf" cushion truck tires and is now in production on this tire.

S. O. White a Councilor

Samuel O. White, chief engineer of the Warner-Gear Co., has been nominated councilor of the Society of Automotive Engineers for 1932.

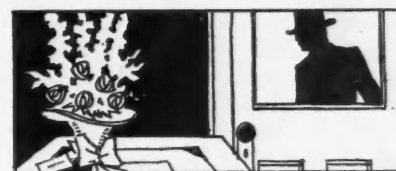
Correction

Studebaker's 1½-ton Model S-20 is now equipped with a full-floating Clark axle and not a Timken as erroneously stated in a description published in the last issue of this publication.

F. J. Glennon

F. J. Glennon, vice-president and general manager of Aluminum Industries, Inc., died in September as a result of an appendicitis operation.

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PERSONNEL CHANGES

★E. J. Walker, former secretary, was promoted to vice-president and general manager of the Sterling Motor Truck Co.'s Pittsburgh activities. He succeeds Carl G. Kanne, who was recently transferred to the Philadelphia sales division. James Martin succeeds Mr. Walker as secretary.

★Nelson A. Beardsley, for years an outstanding figure in the Willys-Overland organization, has been advanced to the office of general sales manager of the company. Mr. Beardsley rises to his present position after a steady 16-year climb.

★Carl Parker, a national figure in truck circles and former sales manager of the truck division of Reo Motor Car Co., has joined Federal Motor Car Co. and will be supervisor of branches.

★Rex Glasson, rich in newspaper, advertising and promotion experience and formerly sales promotion manager of Dodge Bros. Corp., has tied up with Federal Motor Car Co. in a similar capacity.

★George M. Bunn has severed connections with Clinton Motors Corp. and joined the Truck Equipment Sales Corp. of Buffalo with headquarters in Philadelphia.

★Herbert Wirshing has been transferred from Tulsa to take charge of a new district office opened by the Waukesha Motor Co. in San Francisco.

★Tom O. Duggan, of merchandising fame and N.S.P.A. connection, has joined the organization of Thompson Products, Inc., in the capacity of merchandising director.

★George W. Eversman, advanced, is now director of advertising and sales promotion of Reo Motor Car Co.

★Robert S. Muir has been appointed truck representative of Dodge Bros. Corp. in Chicago region, replacing E. D. Erickson, resigned.

TURN TO PAGE 50, PLEASE

Carl Parker, Supervisor of Federal Truck Branches



October, 1931

SAFETY REWARDS! CASH, HONORS, OR NOTHING?

CONTINUED FROM PAGE 42

fleets with an estimated 400,000 vehicles which are cooperating in a national program of accident-prevention. There were many conference discussions on this question of the most suitable national safety emblem for drivers, and a broad investigation in cooperation with the headquarters office of the National Safety Council.

A critical study of bonus and merit award plans developed the general conclusion that an award or bonus plan if adapted to the organization is decidedly worth while in accident-prevention. It was found that many large companies have driver merit awards, and such awards are offered to their client companies by a number of insurance companies. Also such awards are an essential part of the inter-fleet no-accident contests conducted in many cities or districts by community safety councils, chambers of commerce and other organizations. A recent example was the presentation of 194 special safety buttons by the Cleveland Safety Council to Cleveland Yellow Cab Co. drivers with no-accident records, and it was announced by the company that all drivers who had had no chargeable accidents for the year ending June 30, 1932, would be awarded a week of vacation with pay.

It was decided, as the result of the investigations of the Delivery, Taxicab and Bus Section, that it would be advisable for the National Safety Council to develop a safety merit award plan that could be generally adopted and that would have national significance. This resulted in the development of the metal No-Accident Driver Award emblem, supplemented by a certificate, to be supplied without charge for all commercial vehicle drivers who have operated one or more years without an accident.

Naturally, the definition of "an accident" is quite important. After a good deal of debating, it was decided to count "any accident causing personal injury or property damage, regardless of who was injured, whose property was damaged, or who (what) was at fault, and regardless of whether the vehicle was in motion, temporarily stopped in traffic, or parked at the curb." This sweeping definition was made in order to avoid many troublesome borderline cases and questions of divided responsibility. Many companies in their own awards of certificates or bonuses prefer not to count as accidents vehicles which were

slightly damaged while parked at the curb and through no fault of the driver.

About 700 no-accident driver awards have been made to drivers in about 100 different organizations since the emblem was announced a few months ago. For example, the Wieboldt Department Store of Chicago in a public ceremony presented awards to 10 drivers. A. O. Hensler, delivery superintendent, stated in the presentation that the cooperating safety efforts of management and drivers had resulted in a 60 per cent reduction in

TURN TO PAGE 50, PLEASE

SCENES BEHIND ENGINEER DOORS

CONTINUED FROM PAGE 15

they may be more numerous in the near future.

● Automatic Transmission ●

The clutch pedal, faithful servant of drivers since the time when planetary transmissions had their direct drives controlled by levers, is just now the hapless victim of a determined onslaught by a host of engineers. Experts may revel in their ability to make clashless shifts up or down at any speed and to get away "fast and smooth" but their utmost efforts will soon be put to shame, if plans mature. The English Daimler car is equipped with a fluid flywheel which makes starting a mere matter of pushing the accelerator to the floor. Other unconventional types of clutches have progressed beyond the drawing board stage. Automatic control is here.

Merely a symbol is the clutch pedal here because the aim is to develop a mechanism which will provide the torque needed to start and to move a vehicle without effort on the driver's part. The smooth, high-torque start of a steam engine or the gas-electric is the goal. To attain this end designers are considering changes in clutches, easy-shift transmissions, free wheeling, as well as entirely unconventional power transmitters.

The problem is made no simpler by increase in size and power of engines. Controlling and applying 30 hp. is one thing, harnessing eight or ten times that power is one reason why there is no depression in the midnight oil industry.

Peeking through a keyhole will not show the pet idea of one engineer because he has not yet put it on the drawing board. He visions trucks controlled as easily as radios, remote control and all. By using electricity directly or to operate pneumatic de-

vices he proposes to start, stop, steer and control the riding qualities of trucks. Dual controls, like airplanes, would be provided for relief on long runs, snapping a switch would turn control over to the co-driver.

Fantastic, surely, but remember 1914.

75 RAILS GO STORE-DOOR

CONTINUED FROM PAGE 31

The railroads specifically provide that the arrangements for pick-up or delivery services do not obligate them to perform the services at locations where it is impracticable to operate trucks or drays because of the condition of streets or alleys.

If shipments are tendered for delivery once to the consignees and delivery cannot be made through no fault of the carriers, no further efforts will be made, excepting upon request of the consignee. An extra charge of 10c per 100 lb. or fraction of 100 lb. is made for each tender of delivery.

● Collections ●

Railroads heretofore have not undertaken to collect the amounts of the invoices covering the goods shipped and remit the amounts collected to the shippers. This service has been rendered for many years by the railway express companies and by motor freight carriers.

The Southwestern Lines made another innovation in freight service by establishing a C. O. D. service in connection with all shipments eligible to receive pick-up and delivery services if requested by the shippers and if the additional C.O.D. charges are paid. These charges for collecting and remitting the invoice amounts range from 30c upon collections of \$5 or less to \$3.25 upon collections of \$1,000. Amounts over \$1,000 are collected and remitted at the rate of \$3.25 per \$1,000.

The arrangements made by the Southwestern Lines in connection with pick-up, delivery and C.O.D. services are of greatest importance to shippers, railroads and motor freight carriers. Arrangements are made with motor trucking companies to perform the services in various cities throughout the Southwest as agents of the railroads.

These steps mark a significant advance in the new transportation program of the railroads—an advance designed to add greater flexibility to railroad freight service and to meet motor freight carrier competition.

How Cardinal Stage Lines stick to an old friend...

Cardinal
STAGE LINES COMPANY
GENERAL OFFICES
331 N. EIGHTH STREET
SALINA, KANSAS

Budd Wheel Company,
Detroit, Michigan.

Gentlemen:

Because of the service we have always received from Budd-Michelin Wheels, we are never willing even to consider using any other type of wheel equipment.

And we're one of the first users of Budd Wheels -- sticking to them since back in 1920 when you were pioneering with the first wheels of this type, on White equipment of the old Cleveland-Akron bus line.

Yours truly,

H.A. Moore

**BUDD
DUALS**
BUDD WHEEL COMPANY
PHILADELPHIA
AND DETROIT



SAFETY REWARDS! CASH, HONORS, OR NOTHING?

CONTINUED FROM PAGE 48

delivery costs per package in 1930 as compared with 1926.

The Motor Freight Co., Inc., a cross-country trucking firm of Detroit, likewise presented No-Accident Driver Awards to 14 drivers who had operated 400,000 miles without accidents. In addition to the medal awards, these 14 men participated in the distribution of \$700 in cash bonus awards which had accumulated through a joint fine and bonus system.

One of the outstanding recent presentations of No - Accident Driver Awards was to 104 ice truck operators for the City Ice Company of Kansas City in a public ceremony which received much newspaper attention. These drivers represented approximately one-half the company force.

The presentation of no-accident driver awards is coming to have more and more public significance. All local newspapers are interested in street safety, and they usually are glad to give publicity to any outstanding company driver safety records, since the safe driving of commercial vehicles is an important part of the community accident - prevention problem. Such presentations help to educate the public to the fact that commercial vehicles have fewer accidents than private passenger cars, as proved by the investigations of the National Safety Council showing that during the three-year period from 1927 to 1930 inclusive, while fatal accidents to private passenger cars increased by 37 per cent, the accident rate for commercial vehicles decreased by 19.3 per cent. This decrease was undoubtedly due to increasing education and safety supervision of commercial car drivers, and bonus and merit awards have had an important place in this program.

TRUCK SALESMEN DON'T TOOT THE RIGHT TUNE

CONTINUED FROM PAGE 31

may find himself up against a job that that particular salesman's truck can economically handle.

● Demonstrations Pay, But— ●

I have read with a great deal of interest your article, "Salesmen to Sell Must Have Trucks to Show," in the August issue of *COMMERCIAL CAR JOURNAL* complaining against the practice of managers requiring salesmen to sell trucks from paper and substantially agree with everything you have stated, that is,

from the salesman's standpoint.

We have been in business here for 20 years and this is one of the problems that we have never satisfactorily handled either to the satisfaction of ourselves or to the satisfaction of our salesmen. We certainly would be very glad if anyone can show us how we can carry a representative line of equipment on our floor on a profitable basis.

We carry both the White and Stewart trucks with some 50 different models between the two lines and 99 times out of 100 every chassis we have available is either of the wrong wheel-base, wrong tires, etc., so that it is almost necessary for us to order a new chassis for delivery purposes.

In addition to this the worst part is that the more stock a sales organization has on hand, the more demonstrating is done with it and the more mileage it is asked to do, and before long it becomes a used truck or a demonstrator, which from management standpoint means loss of gross profit.

If you can throw any light on this from the other side of the fence, we will be very glad to hear it.

R. S. SAULFELD,
General Manager.

SCOTT USES WELD TO FORM 1250-GAL. TANK

Scott Welded Products, Long Island City, N. Y., builds large tanks without seams. The 1250-gal. tank illustrated is constructed of one-piece seamless shell with flanged heads and partitions. It is divided into five compartments, and equipped with a standard flexible support mounting of Scott design. The unit is 15 ft. long, 45 in. high and 82 in. wide. Gross weight of the body is approximately 900 lb. An emergency valve is located in each compartment and is operated by electric control mechanism inclosed entirely within the tank. A bucket-box is provided at the rear and a 2-in. pipe line from each compartment terminates in the bucket-box in a 2-in. Wheaton faucet. Chromium plate guard rails are provided on each running board. Underslung can racks are provided at each guide with hinged doors and locks. These racks hold nine 10-gal. round cans on each side.



Five-compartment 1250-gal. tank body built by Scott Welded Products

FIRST TRUCK 12 BY AMERICAN LA FRANCE

CONTINUED FROM PAGE 36

center of the intake, to heat the incoming mixture. Exhaust manifolds are made in three parts with expansion joints. Metal packing is employed in the water pump which delivers 85 gal. per min. at 1000 r.p.m. The fan has four blades and is driven by two V-type belts, adjusted by an eccentric fan shaft mounting.

MAINTENANCE CHATTER

CONTINUED FROM PAGE 35

Weighing front and rear end of trucks separately when loaded to maximum capacity is recommended by India Tire & Rubber Co., Akron, Ohio, to determine if the tires on each axle have sufficient capacity to carry the maximum load. The company points out that dividing the gross weight of a vehicle by the number of tires does not show whether or not some of the tires are overloaded. The correct method is to divide the gross weight on each axle by the number of tires on that axle to determine the weight carried by each tire.

AUTOMOTIVE FLASHES

CONTINUED FROM PAGE 47

The M.E.A. Schism

Temporary staffs were chosen to function until Jan. 1 when duly elected officers and directors will take office in a reorganized Motor and Equipment Association. Two bodies will result from the proposed reorganization, the Motor and Equipment Manufacturers' Association, which George L. Brunner will temporarily head, and the Motor and Equipment Wholesalers' Association, to be presided over by A. H. Eichholz.

Stretching Employment

Rubber men at a recent meeting of their association resolved that their industry, in order to give employment to the greatest number of people, should make every effort to maintain the present force, even if a reduction in hours becomes necessary.

PERSONNEL CHANGES

CONTINUED FROM PAGE 47

Mark Harris of General Motors, H. H. Franklin and American Steel Foundry connections, has been appointed chief engineer of the Gabriel Co.

Walter V. Hall and A. F. Jordan have been appointed sales manager and manager respectively of the Cleveland office of the United States Air Compressor Co.

STRENGTH



THE continuous base of Firestone Type R rims has the necessary strength to support the heavy loads hauled on trucks or buses. This continuous band gives the tire the most secure base support, unequalled for strength, because it is not disturbed when changing tires. The one-piece cylinder assures longer life, greater dependability and safe performance.

On New Trucks and Change-overs Specify Firestone Rims for All Types of Wheels—Wood, Wire, Disc or Cast.

*Listen to the Voice of Firestone
every Monday night over N. B. C.
Nationwide Network.*

Firestone

CONTINUOUS BASE RIMS

SHULER

TRAILER AXLES

OUTSTANDING

There is usually one best product for every manufacturing requirement.

In the Trailer industry SHULER is prepared to help determine the best axle installation to meet specific requirements. We are making Trailer Axles for so many different purposes that it would be a wise move on your part to intrust your problems to us.

A complete line for
TRACTORS and TRAILERS
and FRONT AXLES
for
MOTOR TRUCKS and BUSES

SHULER AXLE COMPANY, INC.
Louisville, Kentucky



What type hauling-unit do you need?

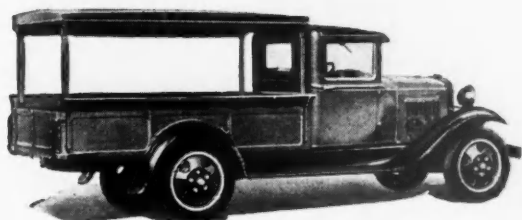
YOU WILL FIND IT IN A STANDARD FORD BODY...AT LOW COST

WHETHER it is a police patrol needed in Tulsa, a coal truck in Butte, or a smart town-car delivery in Manhattan, the Ford Motor Company, through its nation-wide dealer organization, can supply standard Ford bodies to meet your needs.

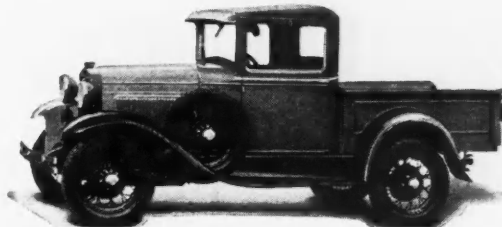
The same principles of volume production which govern the manufacture of Ford chassis are applied to these specialized truck bodies. The result is low production cost — a saving which is passed on to the public in terms of low price and high value. In

addition, the purchaser of any Ford type is assured of quick delivery and of convenient service.

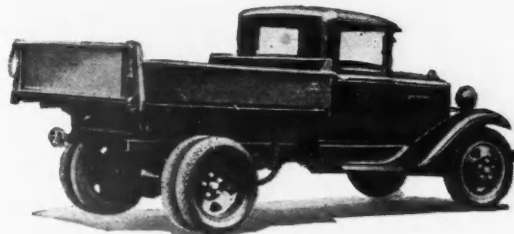
No longer is it necessary to sacrifice time and money in having special truck bodies built to suit your particular needs. In the Ford line there is a standard commercial body ready to start working for you. Here in the utility, performance, and low cost of the Ford truck you will find the solution to your transportation problems — assured low cost per ton-mile.



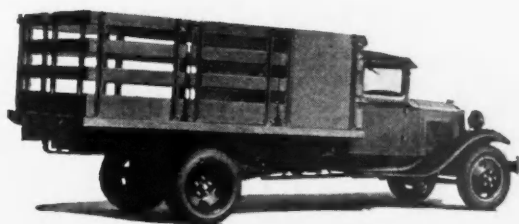
Open express truck with 131½-inch wheelbase



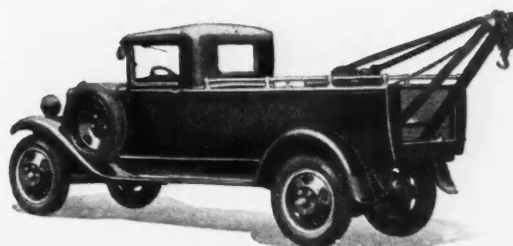
Model A pick-up



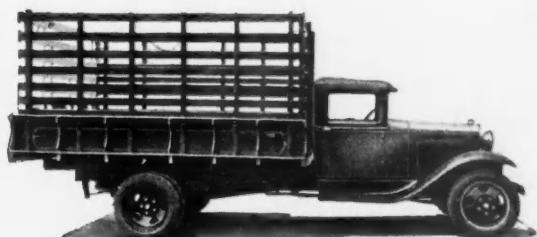
Heavy hydraulic dump truck



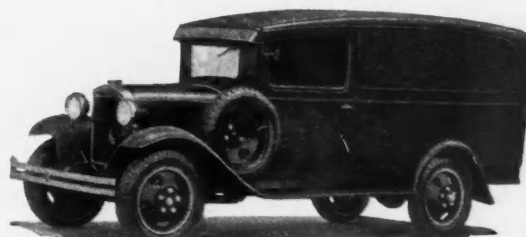
Stake truck with 157-inch wheelbase



Service-car

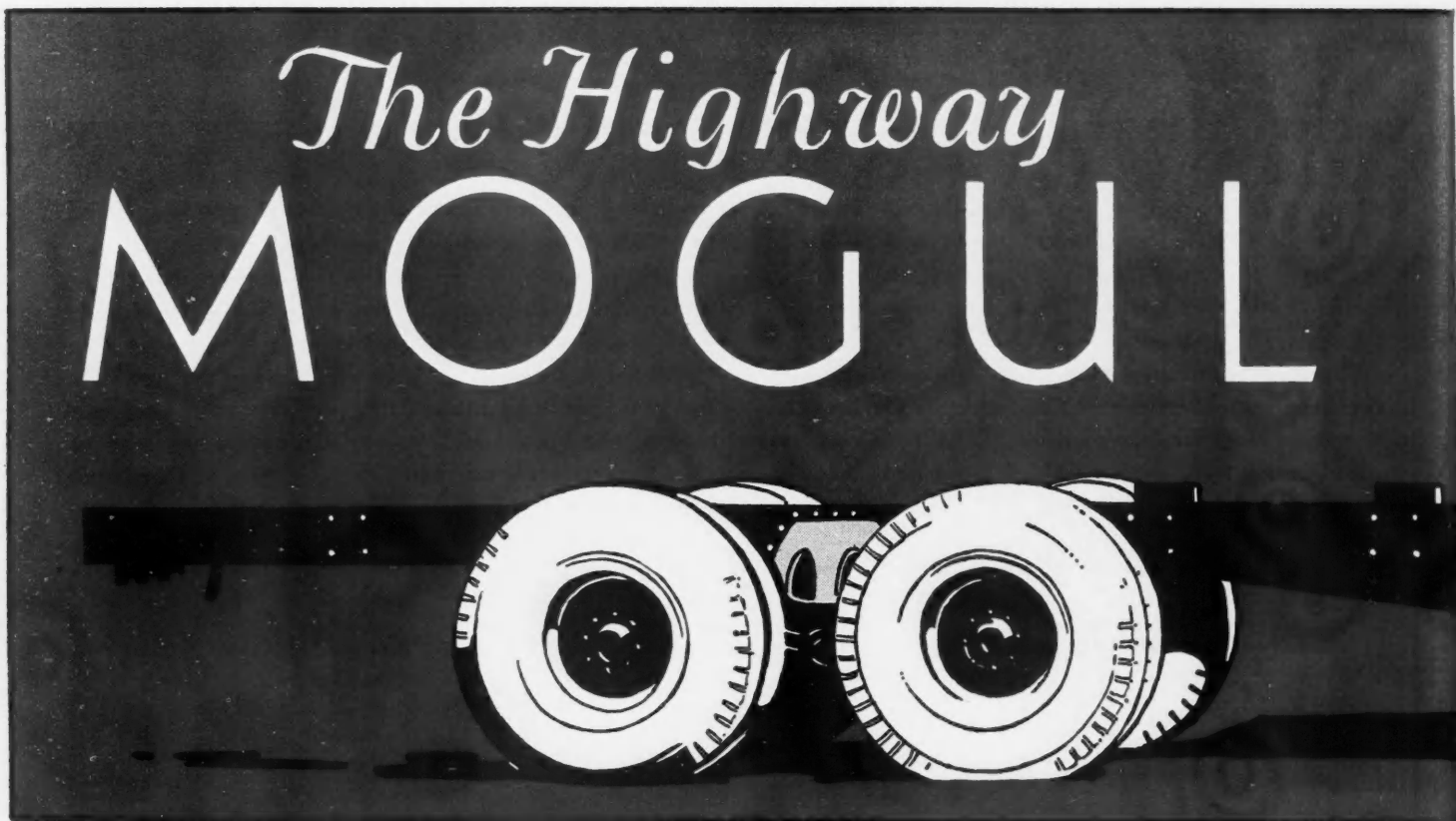


Combination grain and stock body



De Luxe panel truck

The Highway MOGUL



THE EXPRESS TRAIN OF THE HIGHWAY
HAULS 20 TONS GROSS ON TIRES AT
60 MILES PER HOUR

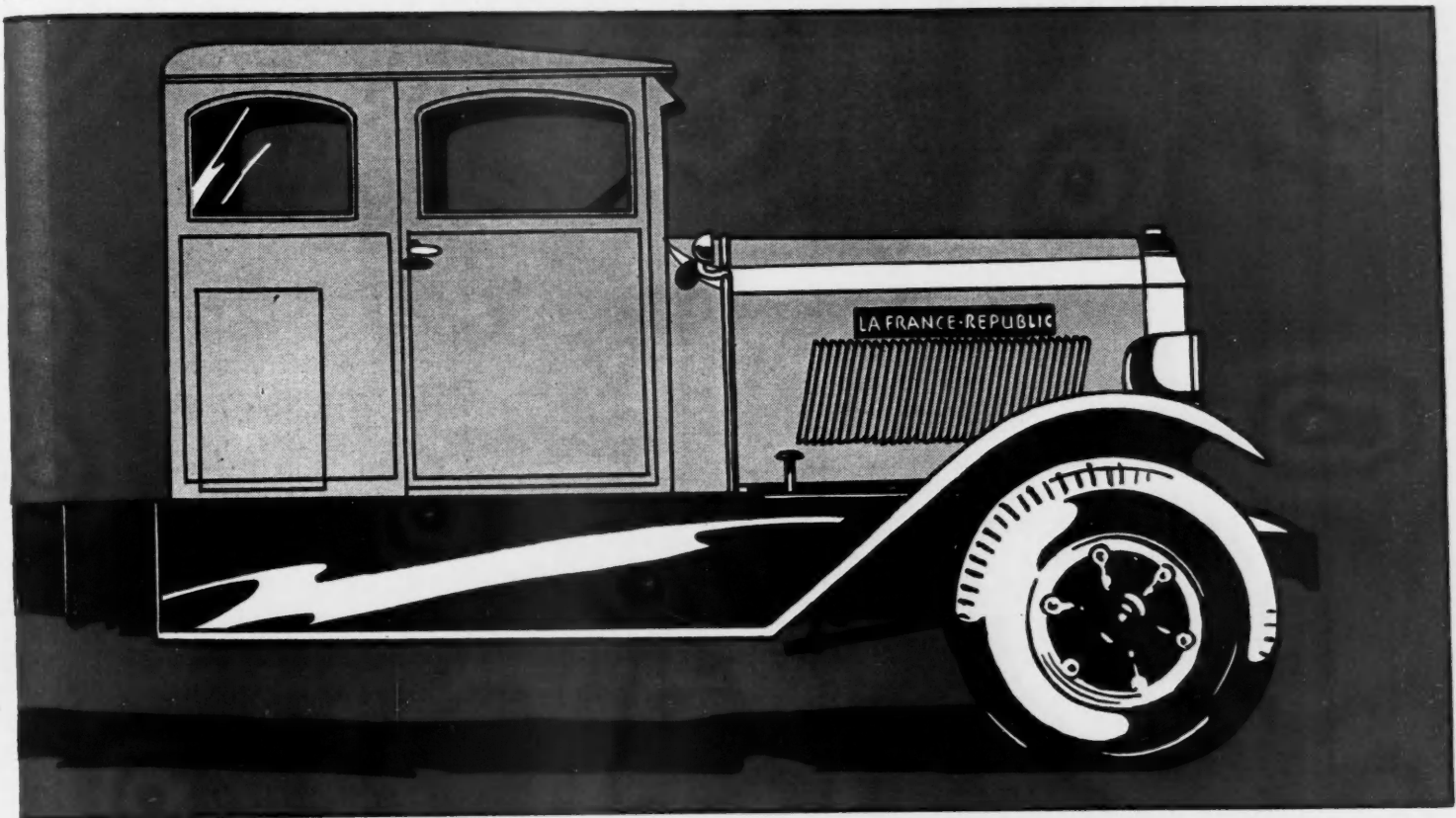
THE ENGINE
AMERICAN LA FRANCE
12 CYLINDER WITH
DUAL IGNITION
AND CARBURETION



The demand for highway freight carriers capable of coping with modern traffic and road conditions is met with the La France-Republic's new super-powered truck—the HIGHWAY MOGUL.

Fast, powerful and as flexible and easy to handle as smaller units, this massive 20 ton six wheeler speeds to its destination. Its twelve-cylinder American La France engine develops 240 horse power at 2900

LA FRANCE-REPUBLIC
ALMA, MICHIGAN, U. S. A.



r.p.m. Dual carburetion and dual ignition with four six-cylinder distributors are provided. Cylinders are chrome-nickel iron cast in one block with dry sleeve inserts. It is available in either worm or double reduction drive. Westinghouse airbrakes are standard equipment on all wheels. The unit transmission has four forward speeds and one reverse. Speeds up to 60 m.p.h. may be attained with 32 m.p.h. in second.

Dealers who vision the future trends in the fast hauling of freight should be interested in the La France-Republic franchise and the opportunity it presents in selling the HIGHWAY MOGUL. Full details will be sent upon receiving your inquiry.

SPECIFICATIONS FOR THE HIGHWAY MOGUL

Wheelbase	Up to 260 in.
Gross vehicle weight	40,000 lb.
Tire size	10.50/20 or 24
Engine make	American La France 312B
No. cylinders	12
Bore and stroke	4 x 5 in.
Piston displacement	754 cu. in.
NACC rating	76.4 hp.
Max. brake hp.	240 at 2900
Diam. main bearings	3 1/2 in.
Length main bearings	10 in.
No. of main bearings	4
Oiling system	Full pressure
Radiator make	Perflex
Clutch type	2 plate
Make	Long 34-A
Diameter	13 3/4
Transmission make	Brown-Lipe 714
Location	Unit
No. forward speeds	4
Universals	Blood Bros.
Rear axle	Timken SWD-410 or SD-410
Final drive	Worm or double reduction
Gear ratio	6 to 1
Optional	5 4/6 and 6 4/5
Reduction in low	34.6
Front axle	Timken 27450W
Brakes, service	Westinghouse
Hand brake	Tru-Stop
Frame dimensions	12 x 3 1/2 in.
Springs, front	44 x 3
Rear	None with s/x-wheel

CORPORATION • •
Cable Address: "Republic Alma, Mich."

Advantages of an Eight for Trucks

- 1—Smooth power; less vibration
- 2—Speedier than "6" of same h.p.
- 3—Less weight per horsepower
- 4—More satisfied drivers
- 5—No greater maintenance cost
- 6—More ton miles per year . . .
- 7—Next step in truck progress
- 8—Follows passenger car trend
- 9—Especially suited to long hauls
- 10—Use "6" or "8" on same chassis

No. 9*

Especially Suited to Long Hauls

Inter-city and long distance hauling by motor trucks has hardly scratched the surface of its possibilities. This traffic is developing very rapidly, as vehicle speed and smooth riding qualities are increased. One of the greatest steps in this direction has been the introduction by Lycoming of an eight-cylinder engine designed especially for truck use. On today's good roads, a truck powered with a Lycoming Straight Eight Engine can maintain high road speed without noticeable strain on the engine, chassis or load. The greater the distances over which fleets of trucks operate, the more important this faster hauling becomes. More trips and more loads are made possible without more equipment or more drivers. Lycoming-Powered eight-cylinder trucks save and make money for their owners. Investigate.

*If you are interested in obtaining a complete set of these advertisements, "Advantages of an Eight for Trucks," write us for reprints of Numbers 1 to 8, inclusive.

8-cylinder Trucks In Use Prove Every Claim

Trucks powered by Lycoming eight-cylinder engines have now been in daily operation over a sufficient length of time to demonstrate conclusively that eight-cylinder commercial cars *DO* operate faster; run more smoothly; save time and money; make possible more trips without added expense; therefore greater profits. Write us for the names of leading truck manufacturers using Lycoming AEC eight-cylinder engines.

Lycoming Series AE Straight Eight Commercial Car Engines
3 3/4 x 4 3/4, 130 H.P., L-Head Type—Piston Displacement
420 cubic inches.
Furnished with provision for 6-ft. Air Compressor, if desired.



LYCOMING MANUFACTURING COMPANY
WILLIAMSPORT, PENNSYLVANIA



**Nickel Alloy Steel Parts
in Gotfredson Trucks:**

Frames
Transmission shafts and gears
Rear axle shafts
Steering arm and knuckles
Steering knuckle pins
Worms
Piston pins
Valve tappets

(Nickel Chrome Iron in
cylinder blocks)

GOTFREDSON trucks reduce upkeep costs and breakage with NICKEL ALLOY STEEL parts...

EIGHTY-FIVE per cent of Gotfredson truck buyers during 1929 were former users. This preference, based on experience, proves that these trucks are built to endure severe abuse and to assure minimum upkeep and repair costs—features which have been obtained by the use of high strength materials. The frames, gears, shafts, steering arms and other parts are made of Nickel Alloy Steels.

The Robert Gotfredson Truck Co. states: "We are of the firm conviction that although the first cost may be affected by the use of these parts, in the final analysis this is more than offset by fewer breakages and tie-ups...that by the use of Nickel Chrome Steel frames we are

increasing the life of our truck and reducing the cost per ton mile considerably. It is a well-known fact that a frame will deflect with each jar of the road. We have found that an ordinary carbon steel frame will eventually take a permanent set or fracture at the weakest point. We have yet to know of one of our Nickel Steel frames fracturing or setting; and as this is the foundation of any truck, we feel that the additional cost is justified."

Our technical files contain a wealth of data drawn from the experience of thousands of users of Nickel Steel in the automotive field. You are invited to communicate with us regarding your specific problems in the selection of materials.

Send for List of Available Publications on Nickel and its Alloys

Nickel

FOR ALLOY STEEL



THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.

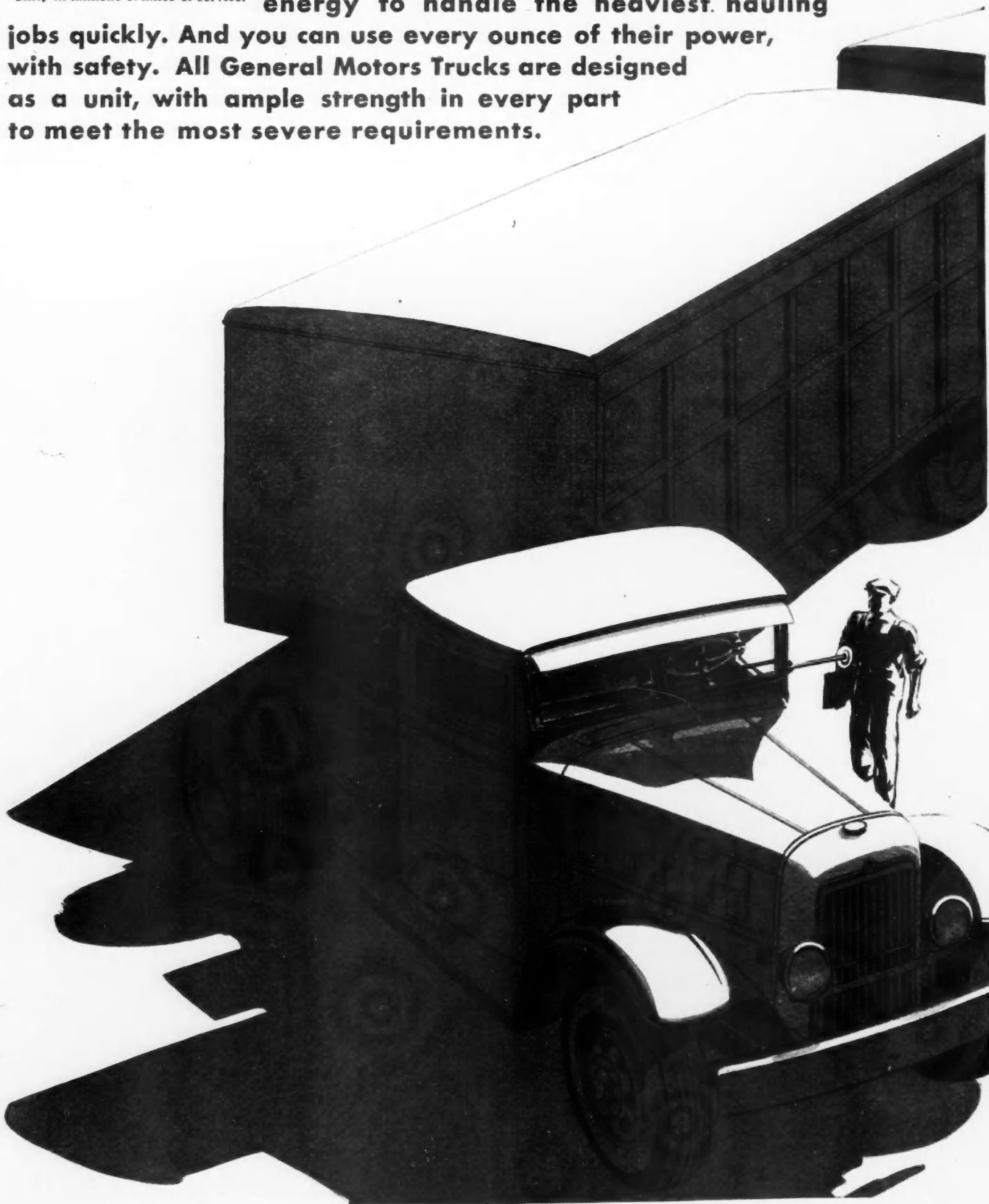


TORQUE

UP TO 450 POUNDS—Speed up your runs! Cut down the delays on grades and heavy loads! Load to capacity every time! You can do it with General Motors Super Heavy-Duty Trucks and Tractors. These new road giants are driven by 115 or 150 horsepower engines — General Motors truck-built sixes that develop as much as 450 foot-pounds torque. They have ample energy to handle the heaviest hauling

General Motors Super Heavy-Duty engines have proved their dependability in millions of miles of service.

jobs quickly. And you can use every ounce of their power, with safety. All General Motors Trucks are designed as a unit, with ample strength in every part to meet the most severe requirements.

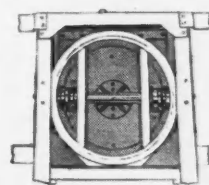




PAYLOADS UP TO 20 TONS PER TRAILER—General Motors truck-built trailers introduce important new economies to trailer operation. They are designed by truck engineers, and built to truck standards of ruggedness by an exclusive commercial-vehicle organization. Many of their parts are interchangeable with General Motors Truck parts—that simplifies maintenance problems. They are serviced by General Motors Truck Company branches and dealer establishments—the same organizations that service your trucks. And they are sold by truck dealers who are trained to give you valuable co-operation in selecting hauling equipment that exactly fits your requirements.

Time payments financed at lowest available rates through our own Y. M. A. C.

General Motors Truck Company, Pontiac, Mich. (A Subsidiary of Yellow Truck and Coach Mfg. Co.)



The General Motors universal fifth-wheel is adaptable for use with the majority of tractors in service today.

GENERAL MOTORS

SUPER HEAVY-DUTY TRUCKS

AND

TRUCK-BUILT TRAILERS



THE PROBLEMS OF YOUNGSTOWN ARE YOUR PROBLEMS TOO!

What's good for Youngstown, is as good for Keokuk and Kankakee. Everywhere buyers know what they need and see that they get it. In the case of the City of Youngstown the problem was simplified by reason of location, but every factor and price schedule had to be right before Commercial could equip this new Youngstown fleet with Safety Slant Hoist and Commercial Bodies. It was a question of the right equipment to meet the hauling problem, *your* problem, in your city whatever your location.



Safety Slant Hoist

Note these "Safety Slant" Hoist Features:

1. No pipes, tubing, or joints to break or leak.
2. Safety check valve at bottom of cylinder holds load until manually released.
3. Positive protection against accidental high pressure by automatic operation of relief valve that allows oil to bypass to reservoir.

"Commercial" Prest-Steelite Rear Dump Bodies are the most advanced body design of today. Prest-steel sections are designed to exert the maximum strength and rigidity of every pound of steel at the points where needed. Closed end box beams support the bottom, imparting a rigidity never before attained.

Electric welding equalizes the stresses through large areas, making permanently strong and rigid connections that are tight under all conditions. "Jack-Knife" sub-frame construction always keeps the body in alignment with the chassis regardless of dumping position.

Write today for literature on "Commercial" 3-Way and Rear Dump Bodies, Hoists and Pumps. Ask for Bulletins 101 and 102.

The **Commercial**
Shearing & Stamping Company

Contract Stampings, Liner Plates, Tank Heads, Pallets and Racks
YOUNGSTOWN, OHIO

COMMERCIAL CAR JOURNAL

TABLE OF TRUCK SPECIFICATIONS

Corrected Each Month From Data

Supplied Direct by Manufacturers

(KEY TO REFERENCES ON PAGE 76)

Tractor Trucks

Make, Model and Capacity	General			Gear Set			Rear Axle			For Corresponding Truck Model, See Specifications Under Tonnage Noted		
	Chassis Price	Standard W.B.	Gross Vehicle Wt. See Key Note	Chassis Wt. Stripped	Make and Model	Location	No. of Forward Speeds	Aux. Locat. and Speeds	Gear Ratios			
									Reduc. in High		Reduc. in Low	
A.C.F. TT175A	155	75000	11000	BL1714703	U	12	Op	7.48	137	T-175A		
A.C.F. TT175B	155	60000	10250	BL1714703	U	12	Op	7.46	135	T-175B		
A.C.F. TT160	155	60000	9700	BL1714703	U	12	Op	7.46	135	T-160		
Autocar DT	3500	140	20000	5300	B-L 51	U	4	No	6.27	33.5	D-2	2 1/2
Autocar SHST	4800	104	40000	7900	Own T	U	4	No	10.4	66.6	SHS	3 1/2
Autocar ECHST	4800	145	40000	8260	Own T	U	4	No	10.4	66.6	SHS	3 1/2
Autocar FT	6800	154	60000	11000	B-L 70	U	7	No	11.66	109	F	5 1/2
Brockway 90	137	15750	3850	B-L	U	4	No	5.83	37.3	90	1 1/2	
Brockway 140	138	24500	5900	B-L	U	4	No	6.6	35.3	140	2 1/2	
Brockway 170	138	29750	6800	B-L	U	4	No	16.4	46.6	170	3	
Brockway 195	138	34125	7900	B-L	U	4	No	6.8	49.5	195	4	
Brockway 220	138	38500	8260	B-L	U	4	No	6.96	50.7	220	5	
Brockway 190	139	33250	7625	B-L	U	4	No	7.75	75.6	190	3 1/2	
Brockway 250	146	43750	10000	B-L	U	4	No	8.75	63.7	250	5 1/2	
Brockway 290	146	52500	10750	B-L	U	7	No	10.1	95.0	290	5 1/2	
Chicago 1-76-D 20T	159		8740	B-L60Max	A	7	No	7.6	77.2			
Condor CB	118		3875	Cov A-4 J	U	4	No					
Condor CC	122		4820	Cov W4J	U	4	No					
Condor CD	122		5020	Cov W4J	U	4	No					
Condor CF	118		5200	Cov Rus	U	4	No					
Condor CGW	153		8950	Cov Rus	U	4	No	6.3	41.0			
Corbitt 9B6T	139	18000	4200	BL-214	U	4	No	6.8	43.6			
Corbitt 12B6T	152	20000	4955	BL-51	U	4	No	7.40	48.8			
Corbitt 15B6T	157	25000	5980	B L-51-5	U	5	No	7.80	46.5			
Corbitt 18B6T	159	30000	7600	BL-615	U	5	No	7.33	48.0			
Corbitt 24B6T	165	40000	9200	BL-70	U	7	No	8.43	57.6			
Diamond T 216	695	135	14000	3300	War	A	4	No	Opt	Opt	216	1 1/2
Diamond T 316	1155	137	17000	4400	War	U	4	No	Opt	Opt	316	2
Diamond T 303	1645	137	20000	4800	Cov	U	4	No	Opt	Opt	303	2 1/2
Diamond T 551	2310	131	28000	5600	Cov	U	4	No	Opt	Opt	551	3
Diamond T 504	2710	135	24000	6200	Cov	U	4	No	Opt	Opt	504	3
Diamond T 603	3360	147	32000	7300	Cov	U	5	No	Opt	Opt	603	4
Diamond T 750	4730	147	40000	8300	Cov	U	5	No	Opt	Opt	750	5
Dodge Bros. F40	1995	150	14590	5173	Own	U	4	No	8.05	55.2	F-40	2
Dodge Bros. F60	2645	146	18979	5543	Own	U	4	No	8.26	56.6	F-60	3
(1) Dodge Bros. UF30, F30, F35												
Federal A6TW	2360	140	25000	5050	Own	A	4	No	8.75	52.9	A6TW	2 1/2
Federal T10W	2915	143	32000	6495	Own	A	4	No	8.75	57.0	T10W	3
Federal U6	3860	143	43000	7155	B-L 60	U	7	No	8.5	83.1	U6	3 1/2
Federal 4C6A	4735	144	50000	8120	B-L 60	A	7	No	9.00	86.5	4C6A	5
Federal 4C6AB	4960	144	50000	8505	B-L 60	A	7	No	9.00	86.5	4C6AB	5
Federal X8	5085	155	65000	9660	B-L 60	A	7	No	11.7	110	X8	5 1/2
Federal X8R	5810	155	65000	10385	B-L 60	A	7	No	11.7	110	X8R	5 1/2
(X) Gen. Mot. T-19	925	141		3440	Own	U	4	No	6.8	37.8		
(X) Gen. Mot. T-25	1405	141		3700	Own	U	4	No	6.8	34.5		
(X) Gen. Mot. T-26	1510	141		3940	Own	U	4	No	6.80	33.5		
(X) Gen. Mot. T-30	1700	141		4705	Own	U	4	No	6.43	32.7	T-30	3
(X) Gen. Mot. T-31	1845	141		4695	Own	U	4	No	6.43	30.5	T-31	3
(X) Gen. Mot. T-42	1845	141		4725	Own	U	4	No	7.14	36.2	T-42	3 1/2
(X) Gen. Mot. T-44	2065	141		5095	Own	U	4	No	9.45	48.0	T-44	4 1/2
(X) Gen. Mot. T-45	2095	141		5235	Own	U	4	No	9.45	59.5	T-45	4 1/2
(X) Gen. Mot. T-51	2625	155		6250	Own	U	4	No	7.14	44.1	T-51	5 1/2
(X) Gen. Mot. T-55	2750	155		6390	Own	U	4	No	9.45	58.4	T-55	5 1/2
(X) Gen. Mot. T-60	3250	154		7150	Own	U	4	No	10.7	65.9		
(X) Gen. Mot. T-61	3525	154		7045	Own	U	4	No	10.7	65.9		
(X) Gen. Mot. T-82	3970	155		7735	Own	U	12	A	12.3	171		
(X) Gen. Mot. T-83	4275	155		7815	Own	U	12	A	12.3	171		
(X) Gen. Mot. T-85	5800	171		10800	Ful	U	12	A	10.5	166.1		
(X) Gen. Mot. T-90	5455	185		9775	Mun	U	12	A	10.3	144		
(X) Gen. Mot. T-95	5765	189		13540	Ful	U	12	A	8.5	53.3		
(X) Gen. Mot. T-96	7325	189		13140	Ful	U	12	A	8.5	53.3		
Gramm AX4 2-3	131			3100	War T9	U	4	No	5.8	36.3	AX4	1
Gramm AX6 2-3	131			3300	War T9	U	4	No	5.8	36.3	AX6	1
Gramm BX4 3-4	131			3275	War T9	U	4	No	6.2	39.6	BX4	1 1/2
Gramm BX6 3-4	131			3475	War T9	U	4	No	6.2	39.6	BX6	1 1/2
Gramm CX4 4-6	131			3700	War T9	U	4	No	5.8	36.3	CX4	2
Gramm CX6 4-6	131			3900	War T9	U	4	No	5.8	36.3	CX6	2
Gramm B 3-5	118			4025	Cov A4J	U	4	Op	5.8	38.4	B	1 1/2
Gramm C 4-6	122			4700	Cov W4J	U	4	Op	5.8	37.1	C	2
Gramm D 5-8	122			5100	Cov W4J	U	4	Op	6.1	39.0	D	2 1/2
Gramm E 6-9	122			5800	Cov Rus	U	4	Op	5.57	37.8	E	2 1/2
Gramm GW 10-15	157			8925	B-L	U	4	Op	6.37	45.3	GW	5
Hux 98	Op				B-L714.703	U	12	A3	10.26	139	98-6	6W
Indiana 89	137	15750	3850	B-L	U	4	No	5.12	20.9	89	1 1/2	

Make, Model and Capacity	General			Gear Set			Rear Axle			For Corresponding Truck Model, See Specifications Under Tonnage Noted		
	Chassis Price	Standard W.B.	Gross Vehicle Wt. See Key Note	Chassis Wt. Stripped	Make and Model	Location	No. of Forward Speeds	Aux. Locat. and Speeds	Gear Ratios			
									Reduc. in High		Reduc. in Low	
Indiana 140	138	24500	5900	B-L	U	4	No	6.16	35.3	140	2 1/2	
Indiana 170	138	29750	6800	B-L	U	4	No	6.41	46.6	170	3	
Indiana 195	138	34125	7900	B-L	U	4	No	6.8	49.5	195	4	
Indiana 220	138	38500	8200	B-L	U	4	No	6.96	50.7	220	5	
Indiana 190	139	33250	7625	B-L	U	4	No	7.75	75.6	190	3 1/2	
Indiana 250	146	43750	10000	B-L	U	4	No	8.75	63.7	250	5 1/2	
Indiana 290	146	52500	10750	B-L	U	7	No	10.09	95.0	290	5 1/2	
International A-L	31450	138		W-G T7	U	4	No	6.50	42.8	AL-3	1 1/2	
International A-2	675	136		W-G T7	U	4	No	6.16	39.5	A-2	1 1/2	
International B-2	725	136		M. M. 'O'	U	3	No	6.16	37.3	B-2	1 1/2	
International A-4	1860	145		Own A-5	U	5	No	6.5	47.8			
International A-6	2550	140		Own A-5	U	5	No	7.16	52.8			
International A-6	2675	156		6120	Own	U	5	No	8.20	62.8	A-6	3
International W-1	3850	130		8100	Own	U	5	No	6.85	60.5	W-1	2 1/2
International W-3	4850	144		10100	Own	U	5	No	7.85	70.5	W-3	3
LaFrance Rep. M-2T	147	20000	7700	Ful VUOG	U	5	No	7.2	51.0	M-2	4	
LaFrance Rep. 35-2T	147	24000	9400	Ful MUH	U	4	No	7.33	46.3	35-2	5 1/2	
Mack BF	2500	133		Own BL	U	4	No	Opt	Opt	BL	1 1/2	
Mack BG	3000	138		Own BG	U	4	No	Opt	Opt	BG	1 1/2	
Mack AB	4000	123		Own AB	U	4	No	Opt	Opt	AB	1 1/2	
Mack AB	4150	123		Own BG	U	4	No	Opt	Opt	AB	3	
Mack BC	5250	142		Own BC	U	4	No	Opt	Opt	BC	4	
Mack BC	5500	142		Own BC	U	4	No	Opt	Opt	BC	5	
Mack BJ	6450	169		Own BJ	A	4	No	Opt	Opt	BJ	5	
Mack AK	6150	134		Own AC	U	4	No	Opt	Opt	AK	5	
Mack AK	6250	134		Own AC	U	4	No	Opt	Opt	AK	5	
(1) Mack AK6, AC4, AC6, AP, AK6-6 wheel, AC4-6 wheel, AP-6 wheel												
Netco TC 3400	135			B-L 55-4	U	4	No	7.75	54.2	C	2 1/2	
Netco TE 4300	140			B-L 515	U	5	No	8.00	56.0	E	3 1/2	
Relay 40	3240	138		B-L 35	U	5	No	6.45	34.5	40	2	
Relay 60	4480	140		Ful VU	U	5	No	7.88	58.5			
Reo 1895	142			Own 4650	U	4	Op	6.14	37.8	FH	2	
Reo GD	2085	144		4570	Own	U	4	Op	6.14	37.8	GD	3
Schacht TRH	146			6600	Ful VUOG	U	5	No	7.8	55.1		
Schacht TRHA	148			6650	Ful VUOG	U	5	No	7.8	55.1		
Schacht TRD	148			6850	Ful VUOG	U	5	No	7.8	56.8		
Schacht TRDA	6900	148		6900	Ful VUOG	U	5	No	7.8	56.8		
(1) Sterling FB30-35-45-55-65-75-85-95-105-115-125-135-145-155-165-175-185-195-205-215-225-235-245-255-265-275-285-295-305-315-325-335-345-355-365-375-385-395-405-415-425-435-445-455-465-475-485-495-505-515-525-535-545-555-565-575-585-595-605-615-625-635-645-655-665-675-685-695-705-715-725-735-745-755-765-775-785-795-805-815-825-835-845-855-865-875-885-895-905-915-925-935-945-955-965-975-985-995-1005-1015-1025-1035-1045-1055-1065-1075-1085-1095-1105-1115-1125-1135-1145-1155-1165-1175-1185-1195-1205-1215-1225-1235-1245-1255-1265-1275-1285-1295-1305-1315-1325-1335-1345-1355-1365-1375-1385-1395-1405-1415-1425-1435-1445-1455-1465-1475-1485-1495-1505-1515-1525-1535-1545-1555-1565-1575-1585-1595-1605-1615-1625-1635-1645-1655-1665-1675-1685-1695-1705-1715-1725-1735-1745-1755-1765-1775-1785-1795-1805-1815-1825-1835-1845-1855-1865-1875-1885-1895-1905-1915-1925-1935-1945-1955-1965-1975-1985-1995-2005-2015-2025-2035-2045-2055-2065-2075-2085-2095-2105-2115-2125-2135-2145-2155-2165-2175-2185-2195-2205-2215-2225-2235-2245-2255-2265-2275-2285-2295-2305-2315-2325-2335-2345-2355-2365-2375-2385-2395-2405-2415-2425-2435-2												

(1) Models available as tractor trucks.

The Commercial Car Journal

SCHACT presents a new line of trucks ranging from 1 1/2 to 5 1/2 tons and more.

Federal added five new models; three six-wheelers, D2D and E2D two-tonners, described on page 40 of this issue, and A6SW 4 ton; and two 2 1/2-ton four-wheelers, T3W and T8WF.

Other new listings appearing this month are:

LaFrance-Republic: E1 2 1/2-ton.

Moreland: B13 2 1/2-ton and B15 3 1/2-ton; and B16, B18, E16 and E18, 4 to 4 1/2 ton.

General Motors: T-18 1 1/2 to 2 ton, T-19 2 1/2-ton.

Gramm: G 4-ton.

Mack: AP six-wheeler.

October, 1931

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System		Electrical System		Line Number						
		Chassis Price	Standard W.B.	Max. W.R. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
1000 Pounds																											
1	Chevrolet, Ind. Com.	355	109	109	400C	1880	B 4.75/19	B 4.75/19	Own	6-3 1/2 x 3 1/2	194.0	26.3	50-2600	H	G	C	2 1/2	6 1/2	3	PG	No	Car	P	D-R	D-R	1	
2	Dodge Bros. UP-10	435	109	109	402S	1925	B 5.00/19	B 5.00/19	Own	6-3 1/2 x 3 1/2	196	21.0	48-2800	H	G	C	2 1/2	6 1/2	3	FP	No	Car	M	D-R	D-R	2	
3	Dodge Bros. F-10	515	109	109	412S	1975	B 5.25/19	B 5.25/19	Own	6-3 1/2 x 3 1/2	211.5	25.3	66-3200	L	L	A	2 1/2	6 1/2	4	FP	No	Car	M	D-R	D-R	3	
4	Fargo Packet	595	109	109	412S	1935	B 5.00/19	B 5.00/19	Own	6-3 1/2 x 3 1/2	189.8	23.4	40-2200	H	G	C	2 1/2	6 1/2	3	FP	No	Car	M	D-R	D-R	4	
5	Ford	540	103	103	400C	1880	B 4.75/19	B 4.50/20	Own A	4-3 1/2 x 4 1/2	200.5	24.0	40-2200	L	L	A	1 1/2	7	3	FP	No	Car	V	Own	N-E	5	
6	(X) Gen. Mot. T11	625	109	141	3800	1980	B 5.00/19	B 5.50/19	Own 200	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	L	A	2 1/2	5 1/2	3	CC	No	Mar	M	D-R	D-R	6	
7	(X) Gen. Mot. T-15	121	141	141	6500	2425	B 5.50/20	B 5.50/20	Pontiac	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	L	A	2 1/2	5 1/2	3	CC	No	Mar	M	D-R	D-R	7	
8	Paige	765	115	115	4435	2350	B 5.50/19	B 5.50/19	Own	6-3 1/2 x 3 1/2	207	23.4	66-3200	L	L	A	2 1/2	10 1/2	7	FP	No	Ste	M	D-R	D-R	8	
9	Studebaker	595	114	114	4435	2330	B 5.25/19	B 5.25/19	Own	6-3 1/2 x 3 1/2	221	21.3	70-3200	L	L	A	2 1/2	8 1/2	4	CC	No	Str	M	D-R	D-R	9	
10	Willis Six	395	113	113	4000	1923	B 5.00/19	B 5.00/19	Own C-113	6-3 1/2 x 3 1/2	193.0	25.3	65-3400	L	L	A	2 1/2	6 1/2	4	CC	No	Til	M	A-L	A-L	10	
1500 Pounds																											
11	Dodge Brothers	490	124	124	4760	2260	B 6.00/20	B 6.00/20	Own	4-3 1/2 x 4 1/2	196	21.0	45-2800	L	L	A	2 1/2	6 1/2	3	PC	No	Car	V	D-R	D-R	11	
12	Dodge Brothers	595	124	124	4860	2360	B 6.00/20	B 6.00/20	Own	4-3 1/2 x 4 1/2	208.0	27.3	63-3200	L	L	A	2 1/2	10 1/2	7	PC	No	Car	V	D-R	D-R	12	
13	Fargo Clipper	725	120	128	6800	2340	B 5.50/18	B 5.50/18	Own	4-3 1/2 x 4 1/2	195.6	23.4	48-2800	L	L	A	2 1/2	5 1/2	3	FP	No	Str	M	D-R	D-R	13	
14	Fisher-Std. JR-BX	645	120	128	6800	2340	B 5.50/18	B 5.50/18	Con W10	4-3 1/2 x 4 1/2	200.5	24.0	48-2800	L	L	A	2 1/2	5 1/2	3	FP	No	Zen	M	A-L	A-L	14	
15	(X) Gen. Mot. T15	645	130	141	6500	2625	B 5.50/20	B 5.50/20	Own 200	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	L	A	2 1/2	5 1/2	3	CC	No	Str	M	D-R	D-R	15	
16	Relay	1370	131	131	7500	3750	P 30x5	P 30x5	Con 17E	6-3 1/2 x 4	214.7	27.3	52-2200	L	L	A	2 1/2	9 1/2	7	PC	No	Str	V	A-L	A-L	16	
1 Ton																											
17	Atterbury	132	145	145	7000	3400	P 30x5	P 30x5	Lyc WTG	6-3 1/2 x 4 1/2	201.4	21.6	64-2800	L	L	A	2 1/2	6 1/2	4	CC	No	Zen	G	D-R	D-R	17	
18	Brookway	132	141	141	6000	3200	P 30x5	P 30x5	Con	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	L	A	2 1/2	6 1/2	4	CC	No	Zen	V	A-L	A-L	18	
19	Brookway	132	141	141	6000	3200	P 30x5	P 30x5	Con	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	L	A	2 1/2	6 1/2	4	CC	No	Zen	V	A-L	A-L	19	
20	Commerce	1600	142	162	6500	3900	P 30x5	P 30x5	Bud HS6	6-3 1/2 x 4 1/2	248.2	27.3	53-2200	L	L	A	2 1/2	10 1/2	4	CC	No	Zen	M	A-L	A-L	20	
21	Condor	885	131	180	8000	3550	B 6.00/20	B 6.50/20	Con 25A	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	L	A	2 1/2	6 1/2	4	FP	No	Til	M	A-L	A-L	21	
22	Day Elder	885	131	180	8000	3550	B 6.00/20	B 6.50/20	Con 25A	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	L	A	2 1/2	6 1/2	4	FP	No	Til	M	A-L	A-L	22	
23	Diamond T	216	121	121	5800	3300	B 6.00/20	B 6.50/20	Her JXA	6-3 1/2 x 4 1/2	228.0	27.3	56-2400	L	L	A	2 1/2	10 1/2	7	PC	No	Zen	M	A-L	A-L	23	
24	Dodge Brothers	495	133	133	5840	2590	P 6.00/20	P 32x6	Own	4-3 1/2 x 4 1/2	196	21.0	45-2800	L	L	A	2 1/2	6 1/2	3	PC	No	Ha	V	D-R	D-R	24	
25	Dodge Brothers	495	133	133	5840	2590	P 6.00/20	P 32x6	Own	4-3 1/2 x 4 1/2	208.0	27.3	63-3200	L	L	A	2 1/2	10 1/2	7	PC	No	Ha	V	D-R	D-R	25	
26	Douglas	1095	135	145	7500	3075	P 30x5	P 30x5	Bud J214	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	L	A	2 1/2	10 1/2	7	FP	No	Zen	M	A-L	A-L	26	
27	Fargo Freight	795	128	136	7800	3150	P 30x5	P 32x6	Own	4-3 1/2 x 4 1/2	189.8	23.4	40-2200	L	L	A	2 1/2	6 1/2	3	FP	No	Str	V	N-E	N-E	27	
28	Fisher-Std. Sp. X-1-1/2	128	136	136	7800	3150	P 30x5	DP30x5	Con W-20	4-3 1/2 x 4 1/2	227	26.8	52-2400	L	L	A	2 1/2	5 1/2	3	FP	No	Zen	M	A-L	A-L	28	
29	Garford	1600	142	162	6500	3900	P 30x5	P 30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	L	A	2 1/2	10 1/2	4	CC	No	Zen	V	A-L	A-L	29	
30	(X) Gen. Mot. T15	675	130	141	6500	2670	B 7.00/20	B 7.00/20	Own 200	6-3 1/2 x 3 1/2	200.3	26.3	60-3000	L	L	A	2 1/2	5 1/2	3	CC	No	Mar	M	D-R	D-R	30	
31	Gramm	795	131	180	8000	3350	B 6.00/20	B 6.50/20	Con W-10	4-3 1/2 x 4 1/2	200.4	24.0	50-2800	L	L	A	2 1/2	5 1/2	3	FP	No	Til	M	A-L	A-L	31	
32	Gramm	895	131	180	8000	3350	B 6.00/20	B 6.50/20	Con 25A	6-3 1/2 x 4 1/2	214.7	27.3	61-3000	L	L	A	2 1/2	6 1/2	4	FP	No	Til	M	A-L	A-L	32	
33	Hahn & Seiden	137	149	149	6500	3400	P 30x5	P 30x5	Con 29L	6-2 1/2 x 4 1/2	185.0	19.8	45-2800	L	L	A	2 1/2	6 1/2	4	FP	No	Str	V	A-L	A-L	33	
34	Indiana	795	132	132	6000	3000	B 5.50/20	P 32x6	Lyc WTG	6-3 1/2 x 4 1/2	201.5	21.5	60-2500	L	L	A	2 1/2	7	4	CC	No	Zen	V	A-L	A-L	34	
35	LaFrance-Republic-A1	795	132	132	6000	3000	B 5.50/20	P 32x6	Lyc WTG	6-3 1/2 x 4 1/2	201.5	21.5	60-2500	L	L	A	2 1/2	7	4	CC	No	Zen	V	A-L	A-L	35	
36	LaFrance-Republic AA-1	1400	131	131	6000	3800	P 30x5	P 30x5	Con 17E	6-3 1/2 x 4 1/2	214.7	27.3	52-2200	L	L	A	2 1/2	6 1/2	4	CC	No	Str	V	A-L	A-L	36	
37	Relay	1100	142	162	6500	4050	P 30x5	P30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	L	A	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	37	
38	Relay	1100	142	162	6500	4050	P 30x5	P30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	L	A	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	38	
39	Rugby	1100	142	162	6500	4050	P 30x5	P30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	L	A	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	39	
40	Service	1100	142	162	6500	4050	P 30x5	P30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	L	A	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	40	
41	Sterling	1100	142	162	6500	4050	P 30x5	P30x5	Bud HS6	6-3 1/2 x 4 1/2	241.6	27.3	53-2200	L	L	A	2 1/2	10 1/2	4	CC	No	Str	V	A-L	A-L	41	
42	Stewart	30	695	130	160	2977	B 6.50/20	B 6.50/20	Lyc AFE	4-3 1/2 x 4 1/2	199.0	22.5	50-2600	L	L	A	2 1/2	7 1/2	3	PC	No	Str	V	D-R	D-R	42	
43	Stewart	30	695	130	160	2977	B 6.50/20	B 6.50/20	Lyc WSG	4-3 1/2 x 4 1/2	201.5	22.5	50-2600	L	L	A	2 1/2	7 1/2	3	PC	No	Str	V	D-R	D-R	43	
44	White	15	1545	133	157	3402	P 30x5	P 30x5	Own GKA	4-3 1/2 x 4 1/2	226.4	22.5	31-1600	L	L	A	2 1/2	10 1/2	7	FP	No	Zen	V	D-R	D-R	44	
45	White	60	1545	133	157	3402	P 30x5	P 30x5	Own 2A	4-3 1/2 x 4 1/2	226.4	22.5	31-1600	L	L	A	2 1/2	10 1/2	7	FP	No	Zen	V	D-R	D-R	45	
46	World	DA-60	1195	150	166																						

Line Number	Radiator Make	Gear Set		Universal Make and No.	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Auxiliary Type	Line Number		
		Type and Make	Make and Model		Final Drive and Type	Drive and Torque	Gear Ratios	Make and Model	Service	Area Service Brakes	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame			Front	Rear
1	Har	P.Own	Own Ind.	Own	Own Int.	S $\frac{1}{2}$	U 4.1 13.6	Own Ind.	O4IM	101 21	Own	5x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	1
2	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 4.6 13.9	Own	O4IH	125 TX	War	5x1 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	2
3	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 4.7 14.3	Own	O4IH	125 TX	War	5x1 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	3
4	Own	D.Own	Own	Own	Own	S $\frac{1}{2}$	U 3.7 11.7	Own	O4IM	168 21	Own	5x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	4
5	Own	P.Own	Pontiac	M.M.	Pontiac	S $\frac{1}{2}$	H 4.4 14.2	Pontiac	S4IM	200 41	Jac	5x1 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	5
6	Lon	P.Own	W-G	M.M.	Tim 51500	S $\frac{1}{2}$	H 4.4 14.2	Tim 11700	B4IM	308 41	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	6
7	Lon	P.Own	W-G	M.M.	Sal	S $\frac{1}{2}$	H 4.7 14.2	Clark	4IH	154 T	Ros	5x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	7
8	McC	P.Own	W-G	Own	Own	S $\frac{1}{2}$	H 4.7 15.2	Own	B4IM	148 41	Ros	5x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	8
9	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 4.6 12.4	Own	B4IM	143 41	Own	5x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	9
10	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 4.6 12.4	Own	B4IM	143 41	Own	5x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	53 $\frac{1}{2}$	28 $\frac{1}{2}$	42H	36x1 $\frac{1}{2}$	54x1 $\frac{1}{2}$	N	10
11	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 5.6 21.1	Own	O4IH	189 TX	Han	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	66 $\frac{1}{2}$	31	37 $\frac{1}{2}$	39x2	48x2 $\frac{1}{2}$	N	11
12	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 5.6 21.1	Own	O4IH	189 TX	Han	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	66 $\frac{1}{2}$	31	37 $\frac{1}{2}$	39x2	48x2 $\frac{1}{2}$	N	12
13	Own	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	13
14	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	14
15	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	15
16	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	16
17	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 5.6 21.1	Own	O4IH	189 TX	Han	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	66 $\frac{1}{2}$	31	37 $\frac{1}{2}$	39x2	48x2 $\frac{1}{2}$	N	17
18	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 5.6 21.1	Own	O4IH	189 TX	Han	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	66 $\frac{1}{2}$	31	37 $\frac{1}{2}$	39x2	48x2 $\frac{1}{2}$	N	18
19	G&O	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	19
20	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	20
21	Per	D.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	21
22	Per	D.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	22
23	G&O	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	23
24	G&O	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	24
25	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 5.6 21.1	Own	O4IH	189 TX	Han	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	66 $\frac{1}{2}$	31	37 $\frac{1}{2}$	39x2	48x2 $\frac{1}{2}$	N	25
26	Fed	P.Own	Own	Own	Own	S $\frac{1}{2}$	H 5.6 21.1	Own	O4IH	189 TX	Han	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	66 $\frac{1}{2}$	31	37 $\frac{1}{2}$	39x2	48x2 $\frac{1}{2}$	N	26
27	Own	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	27
28	Own	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	28
29	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	29
30	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	30
31	Per	D.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	31
32	Per	D.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	32
33	G&O	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	33
34	G&O	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	34
35	Per	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	35
36	G&O	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	36
37	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	37
38	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	38
39	McC	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	39
40	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	40
41	Per	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	41
42	Fed	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	42
43	Fed	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	43
44	Own	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	44
45	Own	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	45
46	Per	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	46
47	G&O	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	47
48	Per	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	48
49	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	49
50	McC	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	50
51	McC	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	51
52	Lon	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	52
53	Per	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	53
54	Per	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	54
55	Per	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	55
56	Per	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2	54x2 $\frac{1}{2}$	N	56
57	Fed	P.Own	W-G T9	Own	Sal F	S $\frac{1}{2}$	H 4.9 15.5	Own	L4IH	362 TX	Jac	6x2 $\frac{1}{2}$ x $\frac{1}{2}$	C	84	47 $\frac{1}{2}$	32	40x2			

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System		Electrical System		Line Number							
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make		
1½ Ton—Cont'd																												
1	International AL-3	1450	138	164	.....	4032	B 6.00/20	DB6.00/20	Lyc 48LH	6-3¼x4½	224	25.3	54-2700	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	1
2	Kenworth	85	1550	140	152	3700	P 30x5	DP30x5	Con 18E	6-3¼x4	214	27.2	61-3000	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	2	
3	Kelber	80	140	152	8000	3625	B 7.00/20	B 7.00/20	Con 18E	6-3¼x4	214	27.2	61-3000	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	3	
4	LaFrance-Republic C-1	2225	140	172	9300	4600	P 32x6	P 32x6	Lyc 48L	6-3¼x4½	224	25.3	61-2750	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	4	
5	Lange	R	2225	140	172	9300	P 32x6	P 32x6	Her WXB	6-3¼x4½	224	25.3	61-2750	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	5	
6	Larrabee	25	1945	152	160	9375	B 7.00/20	B 7.00/20	Con 16C	6-3¼x4½	248	27.3	65-2700	L	G	C	2½	10	4	PC	No	Zen	V	M	D-R	D-R	6	
7	LeMoon	HB10	1500	140	152	10000	B 6.50/20	B 6.50/20	Con 16C	6-3¼x4½	248	27.3	65-2800	L	G	C	2½	10	4	PC	No	Zen	V	M	D-R	D-R	7	
8	Maccar	36200	1950	154	171	10100	P 32x6	DP32x6	Bud HS	6-3¼x4½	241	27.3	65-27400	L	G	C	2½	10	4	PC	No	Zen	V	M	D-R	D-R	8	
9	Maccar	36A	1900	155	171	10100	P 32x6	DP32x6	Bud H-298	6-3¼x4½	241	27.3	65-27400	L	G	C	2½	10	4	PC	No	Zen	V	M	D-R	D-R	9	
10	Mack	BL	2500	138	148	4800	B 6.00/20	DB6.00/20	Own BL	6-3¼x4½	241	27.3	65-2700	L	G	C	2½	10	4	PC	No	Zen	V	M	D-R	D-R	10	
11	Netco	.....	4000	6.00/20	.....	5300	P 34x5	DP34x5	Bud 6TL	6-3¼x4½	309	31.5	56-2100	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	11
12	Relay	A	2900	168	.....	5300	P 34x5	DP34x5	Bud DS 6	6-3¼x4½	309	31.5	56-2100	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	12
13	Relay	40CA	3040	168	.....	5550	P 34x5	DP34x5	Bud DW6	6-3¼x4½	331	33.7	64-2100	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	13
14	Relay	S 11	1900	162	.....	4500	P 30x5	DP30x5	Bud HS 6	6-3¼x4½	241	27.3	53-2200	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	14
15	Reo	1A, 1C	625	136	160	8000	B 6.00/20	P 32x6	Own	6-3¼x4½	205	22.3	51-2500	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	15	
16	Reo	1B, 1D	725	136	160	8000	B 6.00/20	P 32x6	Own	6-3¼x4½	214	27.3	61-3000	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	16	
17	Reo	DFX Tonner	1095	135	135	9000	B 6.00/20	DB6.00/20	Con 18E	6-3¼x4	214	27.2	61-3000	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	17	
18	Reo	DFX Tonner	1095	135	135	9000	B 6.00/20	DB6.00/20	Con 18E	6-3¼x4	214	27.2	61-3000	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	18	
19	Rugby	6-15	865	135	.....	7150	B 5.50/20	P 32x6	Con 22A	6-3¼x4½	199	22.3	71-3300	L	G	C	2½	6	4	PC	No	Zen	V	M	D-R	D-R	19
20	Rugby	6-15	865	135	.....	7150	B 5.50/20	P 32x6	Con 22A	6-3¼x4½	199	22.3	71-3300	L	G	C	2½	6	4	PC	No	Zen	V	M	D-R	D-R	20
21	Schacht	10H, 1½-2½	156	195	.....	4450	B 6.50/20	DB6.50/20	Con 16C	6-3¼x4½	248	27.3	65-2700	L	G	C	2½	10	4	PC	No	Zen	V	M	D-R	D-R	21
22	Selden	317	142	.....	7900	3900	P 32x6	P 32x6	Con 16C	6-3¼x4½	248	27.3	65-2700	L	G	C	2½	10	4	PC	No	Zen	V	M	D-R	D-R	22
23	Service	40	2990	168	.....	4700	P 34x5	DP34x5	Bud DS 6	6-3¼x4½	309	31.5	56-2100	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	23
24	Service	S11	1900	162	.....	4300	P 30x5	DP30x5	Bud HS6	6-3¼x4½	241	27.3	53-2200	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	24
25	Sterling	FB30	142	.....	2950	B 6.50/20	B 6.50/20	Con 25A	6-3¼x4½	214	27.2	72-3300	L	G	C	2½	10	4	CC	No	Zen	V	M	D-R	D-R	25	
26	Sterling	FB35-1½, 1¾	142	.....	3050	B 6.50/20	B 6.50/20	Con 25A	6-3¼x4½	214	27.2	72-3300	L	G	C	2½	10	4	CC	No	Zen	V	M	D-R	D-R	26	
27	Stewart	40	895	130	160	3215	B 6.50/20	DB6.50/20	Lyc AFE	6-3¼x4½	214	27.2	50-2600	L	G	C	2½	7	4	CC	No	Zen	V	M	D-R	D-R	27
28	Stewart	40X	995	130	160	3350	B 6.50/20	DB6.50/20	Lyc	6-3¼x4½	201	22.6	60-2800	L	G	C	2½	7	4	CC	No	Zen	V	M	D-R	D-R	28
29	Stewart	34X	1195	145	176	3710	B 6.50/20	DB6.50/20	Lyc 48L	6-3¼x4½	224	25.3	61-2600	L	G	C	2½	8	4	CC	No	Zen	V	M	D-R	D-R	29
30	Studebaker	S-20	695	130	160	2840	B 6.00/20	P 32x6	Own	6-3¼x4½	205	22.3	70-3200	L	G	C	2½	8	4	CC	No	Zen	V	M	D-R	D-R	30
31	White	61	2450	148	196	10500	P 30x5	DP30x5	Own 4A	6-3¼x4½	299	32.7	66-2100	L	G	C	2½	10	4	CC	No	Zen	V	M	D-R	D-R	31	
32	Wichita	6-21	2900	160	Op	11000	P 32x6	DP32x6	Wau MS	6-3¼x4½	315	33.7	70-2200	L	G	C	2½	12	4	CC	No	Zen	V	M	D-R	D-R	32	
33	Willys Six	C-131	595	131	131	7000	B 5.50/20	P 32x6	Own C-131	6-3¼x4½	193	22.3	65-3400	L	G	C	2½	6	4	CC	No	Zen	V	M	D-R	D-R	33	
34	Willys Six	C-137	630	157	157	7000	B 5.50/20	P 32x6	Own C-137	6-3¼x4½	193	22.3	65-3400	L	G	C	2½	6	4	CC	No	Zen	V	M	D-R	D-R	34	
35	Witt-Will	S15B	2100	147	.....	10500	P 30x5	DP30x5	Con S4	4-4¼x4½	255	32.8	50-2200	L	G	C	2½	8	4	CC	No	Zen	V	M	D-R	D-R	35
36	Witt-Will	C15B	2200	158	.....	10500	P 30x5	DP30x5	Con 16C	6-3¼x4½	248	27.3	66-3200	L	G	C	2½	10	4	CC	No	Zen	V	M	D-R	D-R	36
37	Woods	32	1995	160	Op	4400	B 6.50/20	DB6.50/20	Her WXA-2	6-3¼x4½	260	29.4	60-2400	L	G	C	2½	13	4	PC	No	Zen	V	M	D-R	D-R	37	
38	World	DB-60	1545	150	166	10000	B 6.50/20	DB6.50/20	Lyc 48L	6-3¼x4½	224	25.3	61-2750	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	38	
1¾ Ton																												
39	Conдор	CB	1460	140	174	12000	B 6.50/20	DB6.50/20	Lyc 48L	6-3¼x4½	224	25.3	61-2900	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	39	
40	Federal	F7	1625	132	152	10000	P 30x5	DP30x5	Con 16C	6-3¼x4½	248	27.3	64-2500	L	G	C	2½	10	4	PC	No	Zen	V	M	D-R	D-R	40	
41	Gramm	B	140	196	12000	4150	B 6.50/20	DB6.50/20	Lyc 48L	6-3¼x4½	224	25.3	61-2900	L	G	C	2½	8	4	PC	No	Zen	V	M	D-R	D-R	41	
2 Ton																												
42	Acme	4X	179	Op	12500	5500	B 7.50/20	DB7.50/20	Con 16R	6-4¼x4½	311	38.4	73-2400	L	H	C	2½	13	4	PC	Ha	Str	M	A-L	A-L	42		
43	Amer. LaF. Chief 9R	3650	180	Op	12000	6000	P 32x6	DP32x6	Own	6-3¼x4½	331	33.7	65-2100	L	G	C	2½	9	4	PC	On	Str	M	A-L	A-L	43		
44	Atterbury	G	160	160	10000	3955	P 32x6	DP32x6	Lyc 48L	6-3¼x4½	224	25.3	62-2800	L	G	C	2½	8	4	CC	On	Str	M	A-L	A-L	44		
45	Atterbury	A5	175	188	12000	5300	B 7.50/20	DB7.50/20	Lyc ASB	6-3¼x4½	278	31.6	82-3000	L	G	C	2½	13	4	CC	Pe	Str	M	A-L	A-L	45		
46	Autocar	A	3200	150	192	16000	P 34x7	P 34x7	Own	6-4¼x4½	358	43.8	82-2400	L	G	C	2½	13	4	CC	Pe	Str	M	A-L	A-L	46		
47	Autocar	D	3500	150	192	16000	P 34x7	P 34x7	Own	6-4¼x4½	358	43.8																

Line Number	Radiator Make	Clutch	Gearset		Universal Make and No.	Rear Axle		Front Axle		Brakes		Frame		Body Mounting Data		Springs		Auxiliary Type	Line Number					
			Make and Model	Location		Final Drive and Type	Drive and Torque	Gear Ratio	Make and Model	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle			Width of Frame	Front	Rear		
1	Mod	P. Own	W-G T17	U	4	No	M.M.5	Own 800	SF	H 6.50	42.9	Own 200	B4IM	295 2I	Ros	6 1/2 x 2 1/4 x 1/4	T	98 1/2	55 1/2	32	40x2 1/4	52x2 1/4	1/4	1
2	Per	P.B-L	B-L 214	U	4	No	Spl	Tim 53200H	SF	H 5.8	34.6	Tim F208	L4IH	220 TX	Ros	5 1/2 x 3 1/4 x 1/4	C	96	58	34	40x2 1/4	52x3	1/4	2
3	Mod	P.B&B	WO-BB	U	4	No	Spl	Tim 52200H	SF	H 5.83	35.8	Tim 30000H	L4IH	308 TX	Han	5 1/2 x 3 1/4 x 1/4	C	101	60	32	38x2 1/4	52 1/2 x 1/4	1/4	3
4	Per	D.B-L	B-L 31	U	4	No	Spl	Tim 54000H	BF	R 5.83	37.4	Tim 12703H	L4IH	413 TX	Han	6x2 1/4 x 1/4	C	109	60	32	38x2 1/4	57x2 1/4	1/4	4
5	Per	D.B-L	B-L 214	U	4	No	Spl	Tim 52300H	BF	H 5.83	37.7	Tim 12703H	L4IH	279 CD	Ros	5x2 1/4 x 1/4	P	84	56	33	38x2 1/4	50x2 1/4	1/4	5
6	Chi	D.B-L	B-L 214	U	4	No	Spl	Tim 52200H	BF	H 6.85	31.7	Tim 11703H	L4IH	452 TD	Ros	6x3 1/4 x 1/4	C	104	60	34	38x2 1/4	54x2 1/4	1/4	6
7	Per	D.B-L	B-L 214	U	4	No	Cle	Tim 54200H	BF	R 5.83	29.1	Tim 14703H	L4IH	136 TX	Ros	6x3 1/4 x 1/4	C	96	58	34	37 1/2 x 2 1/4	49 1/2 x 2 1/4	1/4	7
8	Per	D.B-L	B-L 214	U	4	No	Spl	Tim 54200H	BF	R 5.83	30.6	Tim 14703H	L4IH	315 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	117 1/2	74 1/2	32	42 1/2 x 2 1/4	54x2 1/4	1/4	8
9	Per	D.B-L	B-L 214	U	4	No	Spl	Tim 54200H	BF	R 5.83	30.6	Tim 14703H	L4IH	315 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	117 1/2	74 1/2	32	42 1/2 x 2 1/4	54x2 1/4	1/4	9
10	Own	D. Own	Own BG	U	4	No	Spl	Tim 52000H	SF	H 4.86	24.0	Own BL	L4IH	302 FX	Gem	7x3 1/4 x 1/4	T	109	64	33	40 1/2 x 2 1/4	52 1/2 x 2 1/4	1/4	10
11	Mod	P.B-L	B-L 214	U	4	No	Pet	Tim 52000H	SF	H 4.85	Opt	Tim 11703H	L4IH	229 ID	Ros	6x2 1/4 x 1/4	C	108	72	34	40x2 1/4	50x3	1/4	11
12	Lon	D.B-L	B-L 35	U	4	No	Blo	Own 30	2R	6.45	34.5	Tim 14704 H	L4IH	394 FX	Han	6x3 1/4 x 1/4	P	144	90	34	40x2 1/4	50x3	1/4	12
13	Lon	D.Ful	FuMGU 14	U	4	No	Blo	Own 30	2R	6.45	34.5	Tim 35000 H	L4IH	394 FX	Han	6x3 1/4 x 1/4	P	144	90	34	40x2 1/4	50x3	1/4	13
14	Lon	P.B-L	B-L 20	U	4	No	Blo	Own 20	2R	6.00	30.0	Col 5530	L4IH	297 FX	Han	6x2 1/4 x 1/4	P	133 1/2	83	34	36x2 1/4	48x2 1/4	1/4	14
15	Per	P. Own	Own	U	4	No	Cle	Tim 53200H	SF	H 5.6	36.9	Own	L4IH	230 X	Ros	7x2 1/4 x 1/4	C	126	90	34	40x2 1/4	50x2 1/4	1/4	15
16	Per	P. Own	Own	U	4	No	Cle	Tim 53200H	SF	H 5.6	36.9	Own	L4IH	230 X	Ros	7x2 1/4 x 1/4	C	126	90	34	40x2 1/4	50x2 1/4	1/4	16
17	Own	dp. Lon	Clark	U	4	No	Cle	Own	SF	H 5.2	34.1	Own	L4IH	289 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	97 1/2	52 1/2	40	38x2 1/4	50x2 1/4	1/4	17
18	Own	dp. Lon	Clark	U	4	No	Cle	Own	SF	H 5.2	34.1	Own	L4IH	289 TX	Ros	6 1/2 x 3 1/4 x 1/4	C	97 1/2	52 1/2	40	38x2 1/4	50x2 1/4	1/4	18
19	McC	P.B&B	B-L	U	4	No	Spl	Sal	SF	H 5.38	34.5	Sal	S4IM	275 TX	War	6x2 1/4 x 1/4	C	91 1/2	37 1/2	34	36 1/2 x 2	50x2 1/4	1/4	19
20	McC	P.B&B	B-L	U	4	No	Spl	Sal	SF	H 5.38	34.5	Sal	S4IM	275 TX	War	6x2 1/4 x 1/4	C	91 1/2	37 1/2	34	36 1/2 x 2	50x2 1/4	1/4	20
21	Yon	P.B&B	Ful Wo	U	4	No	Spl	Tim 53200H	BF	H 5.83	31.2	Tim 30000H	L4IH	380 TX	Ros	6x3 1/4 x 1/4	P	109 1/2	72 1/2	34	40x2 1/4	50x3	1/4	21
22	Own	D.B-L	B-L 35	U	4	No	Blo	Tim	WF	6.5	34.8	Tim	L4IH	394 FX	Han	6x3 1/4 x 1/4	P	144	90	34	40x2 1/4	50x3	1/4	22
23	Lon	D.B-L	B-L 35	U	4	No	Blo	Tim 63702	WF	6.5	34.8	Tim 14704 H	L4IH	394 FX	Han	6x3 1/4 x 1/4	P	144	90	34	40x2 1/4	50x3	1/4	23
24	Lon	P.B-L	B-L 20	U	4	No	Blo	Tim 54000	SF	H 5.8	29.2	Col 5530	L4IH	297 FX	Han	6x2 1/4 x 1/4	P	133 1/2	83	34	36x2 1/4	48x2 1/4	1/4	24
25	Per	P.B&B	Cov F4B	U	4	No	Spl	Tim	BF	H 5.66	37.6	Tim	L4IH	269 TX	Ross	6x2 1/4 x 1/4	C	96	57	34	38x2 1/4	50x2 1/4	1/4	25
26	Per	P.B&B	War T9	U	4	No	Spl	Tim	BF	H 5.66	36.2	Tim	L4IH	228 TX	Ross	6x2 1/4 x 1/4	C	96	57	34	38x2 1/4	50x2 1/4	1/4	26
27	Fed	P.B&B	War	U	4	No	Spl	Tim	BF	H 5.6	35.8	Tim	B4IM	230 X	Ros	7 1/2 x 2 1/4 x 1/4	C	77 1/2	40 1/2	32	38 1/2 x 2 1/4	50x2 1/4	1/4	27
28	Fed	P.B&B	War	U	4	No	Spl	Tim	BF	H 5.6	35.8	Tim	B4IM	230 X	Ros	7 1/2 x 2 1/4 x 1/4	C	77 1/2	40 1/2	32	38 1/2 x 2 1/4	50x2 1/4	1/4	28
29	Own	P.B&B	War	U	4	No	Spl	Tim	BF	H 5.6	35.8	Tim	B4IM	230 X	Ros	7 1/2 x 2 1/4 x 1/4	C	77 1/2	40 1/2	32	38 1/2 x 2 1/4	50x2 1/4	1/4	29
30	McC	Lon	War T-9	U	4	No	Spl	Clark B-373	SF	H 5.66	35.8	Clark 208B	B4IM	224	Ros	6x2 1/4 x 1/4	C	85 1/2	50 1/2	34	36x1 1/4	45x2 1/4	1/4	30
31	Own	P. Own	Own 5B	U	4	No	Spl	Own 7C	SF	H 5.67	23.4	Own 7D	L4IH	349 CX	Han	6 1/2 x 3 1/4 x 1/4	C	115 1/2	68 1/2	34	41x2 1/4	50x3	1/4	31
32	Yon	D.Ful	Ful MLU	U	4	No	Spl	Own 30R	WF	H 6.5	34.4	She 3FA10	O2IM	320 RI	Ros	5 1/2 x 2 1/4 x 1/4	C	130	78	30	40x2 1/4	54x3	1/4	32
33	Fed	P.B&B	War	U	4	No	Spl	Tim	SF	H 6.37	40.4	Own	B4IM	235 4I	Own	6x2 1/4 x 1/4	C	86 1/2	51 1/2	37	36x1 1/4	45x2 1/4	1/4	33
34	Fed	P.B&B	War	U	4	No	Spl	Tim	SF	H 6.37	40.4	Own	B4IM	235 4I	Own	6x2 1/4 x 1/4	C	86 1/2	51 1/2	37	36x1 1/4	45x2 1/4	1/4	34
35	Per	D.B-L	B-L 20	U	4	No	Spl	Tim 53200H	BF	H 5.66	36.3	Tim 30000H	L4IH	380 TX	Ros	6x2 1/4 x 1/4	C	91 1/2	37 1/2	34	36 1/2 x 2	50x2 1/4	1/4	35
36	Per	D.B-L	B-L 20	U	4	No	Spl	Tim 53200H	BF	H 5.66	36.3	Tim 30000H	L4IH	380 TX	Ros	6x2 1/4 x 1/4	C	91 1/2	37 1/2	34	36 1/2 x 2	50x2 1/4	1/4	36
37	Chi	dp. Lon	B-L	U	4	No	Blo	Tim	H	Opt	Opt	Tim	L4IH	380 TX	Ros	6-3 1/2 x 1/4	C	Opt	70	34	40x2 1/4	49x2 1/4	1/4	37
38	Per	dp. Lon	WG T9	U	4	No	Spl	Tim 53200H	SF	H 6.38	40.8	Tim 30000H	L4IH	377 TX	Han	6 1/2 x 2 1/4 x 1/4	T	126	70	34	38x2 1/4	54x2 1/4	1/4	38
39	Per	D. Own	Cov A4J	U	4	No	Blo	Tim 54200H	BF	H 5.83	37.1	Col 4003	L4IH	278 FD	Ros	6x2 1/4 x 1/4	C	94	60 1/2	34	40x2 1/4	50x2 1/4	1/4	39
40	Lon	P.B&B	Own	U	4	No	Pet	Tim 52005H	SF	H 5.83	37.1	Tim 11704 H	L4IH	437 TI	Gem	6x2 1/4 x 1/4	C	95	51	34	38x2 1/4	50x2 1/4	1/4	40
41	Per	D. Own	Cov A4J	U	4	No	Blo	Tim 54200H	BF	H 5.83	37.1	Col 4003	L4IH	452 FD	Ros	6x2 1/4 x 1/4	C	94	60 1/2	34	40x2 1/4	50x2 1/4	1/4	41
42	Per	P.B-L	B-L 314	U	4	No	Spl	Tim 56200H	BF	R 6.16	40.6	Tim 33000H	L4ID	578 TX	Ros	6x3 1/4 x 1/4	P	144	92	34	38x2 1/4	54x2 1/4	1/4	42
43	G&O	P.B&B	Own	U	4	No	Spl	Tim 65000BX	WF	R 6.0	28.8	Tim 14703BX	B4IM	450 TD	Ros	5 1/2 x 3 1/4 x 1/4	C	142	81 1/2	34	38x2 1/4	54x3	1/4	43
44	Per	P.B&B	Cov F4B	U	4	No	Spl	Tim 54200H	BF	H 6.80	45.1	Tim 31000H	L4IH	450 TD	Ros	5 1/2 x 3 1/4 x 1/4	C	142	81 1/2	34	38x2 1/4	5		

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System		Electrical System		Line Number						
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
2 Ton—Cont'd																											
1	Reo.....FE	1395	152	156	11000	3700	B 6.50/20	DB6.50/20	Own	6-3 1/2 x 5	268 3	27.3	70-2800	L	C	A	2 1/2	12	7	CC	No	Sch	V	D-R	D-R	1	
2	Reo.....FFX	1395	156	156	11000	3750	B 6.50/20	DB6.50/20	Own	6-3 1/2 x 5	268 3	27.3	70-2800	L	C	A	2 1/2	12	7	CC	No	Sch	V	D-R	D-R	2	
3	Schacht.....10HA-2-3	160	199	160	199	5100	B 7.00/20	B 7.00/20	Con 16C	6-3 1/2 x 4 1/2	248 3	27.3	65-2600	L	G	C	2 1/2	10 1/2	7	FP	No	Ze	V	D-R	D-R	3	
4	Schacht.....20H-2-3	160	199	160	199	5100	B 7.50/20	DB7.50/20	Her WXB	6-3 1/2 x 4 1/2	298 0	33.7	66-2200	L	G	C	2 1/2	13 1/2	7	FP	No	Ze	V	D-R	D-R	4	
5	Service.....S11	2030	162	185	185	4900	P 36x6	DP36x6	Bud DS6	6-3 1/2 x 5	309 6	31.5	56-2100	L	G	C	2 1/2	7 1/2	4	PC	No	Ze	V	D-R	D-R	5	
6	Sterling.....FB45	159	182	159	182	4500	P 32x6	DP32x6	Bud HS6	6-3 1/2 x 4 1/2	241 6	27.3	53-2200	L	G	C	2 1/2	8	4	PC	No	Ze	V	D-R	D-R	6	
7	Sterling.....FB55-2, 2 1/2 T	159	182	159	182	4500	P 32x6	DP32x6	Con 16C	6-3 1/2 x 4 1/2	248 3	27.3	66-2200	L	G	C	2 1/2	8 1/2	4	PC	No	Ze	V	D-R	D-R	7	
8	Stewart.....28X	1495	136	176	176	4058	B 6.50/20	DB6.50/20	Lyc ASL	6-3 1/2 x 4 1/2	224 0	25.3	61-2600	L	G	C	2 1/2	9 1/2	4	FP	No	Str	V	D-R	D-R	8	
9	Stewart.....29XS	1695	145	176	176	4960	P 32x6	DP32x6	Lyc ASA	6-3 1/2 x 4 1/2	278 3	31.5	85-3100	L	G	C	2 1/2	9 1/2	4	FP	No	Str	V	D-R	D-R	9	
10	Studebaker.....S-50	920	148	160	160	3710	B 6.50/20	DB6.50/20	Own	6-3 1/2 x 4 1/2	205 25	25.4	70-3200	L	G	C	2 1/2	9 1/2	4	CC	No	Ha	Str	M	D-R	10	
11	White.....611	2450	148	196	11500	5276	S 36x4	S 36x7	Own GRC	4-4 1/2 x 5	289 0	25.6	45-1600	L	G	S	2 1/2	11 1/2	3	FP	Own	Ze	V	D-R	D-R	11	
12	White.....161 1 to 2T	138	157	138	157	4260	P 30x5	P 30x5	Own GRCB	4-4 1/2 x 5	289 0	25.6	45-1800	L	G	S	2 1/2	11 1/2	3	FP	Own	Ze	V	D-R	D-R	12	
13	White.....162 1 to 2T	138	157	138	157	4260	P 30x5	P 30x5	Own GRCB	4-4 1/2 x 5	289 0	25.6	45-1800	L	G	S	2 1/2	11 1/2	3	FP	Own	Ze	V	D-R	D-R	13	
14	Witt-Will.....C2B	2450	158	158	12500	5400	B 6.50/20	DB6.50/20	Con 16C	6-3 1/2 x 4 1/2	248 3	27.3	66-2200	L	G	C	2 1/2	10 1/2	7	FP	No	Ze	V	D-R	D-R	14	
15	Witt-Will.....C2W	2550	158	158	12500	5400	B 6.50/20	DB6.50/20	Con 16C	6-3 1/2 x 4 1/2	248 3	27.3	66-2200	L	G	C	2 1/2	10 1/2	7	FP	No	Ze	V	D-R	D-R	15	
16	Witt-Will.....R2B	158	158	158	12500	5820	B 6.50/20	DB6.50/20	Con 16R	6-4 x 4 1/2	311 38	38.4	72-2400	H	C	C	2 1/2	11 1/2	7	FP	No	Ze	V	D-R	D-R	16	
17	Witt-Will.....R2	158	158	158	12500	5800	B 6.50/20	DB6.50/20	Con 16R	6-4 x 4 1/2	311 38	38.4	72-2400	H	C	C	2 1/2	11 1/2	7	FP	No	Ze	V	D-R	D-R	17	
18	Woods.....41	2550	170	Op	164	4525	B 7.50/20	DB7.50/20	Her WXB	6-3 1/2 x 4 1/2	298 3	33.7	68-2400	L	G	C	2 1/2	13 1/2	7	FP	No	Str	V	D-R	D-R	18	
19	World.....DC-60	1845	150	164	12000	4450	B 7.00/20	DB7.00/20	Lyc ASL	6-3 1/2 x 4 1/2	224 25	25.3	61-2750	L	G	C	2 1/2	7 1/2	4	CC	No	Ze	V	D-R	D-R	19	
20	World.....DA-88	2300	151	167	12000	4720	B 7.50/20	DB7.50/20	Lyc GU	8-3 x 4 1/2	268 28	28.8	96-3400	L	G	C	2 1/2	8 1/2	5	CC	No	Ha	M	A-L	A-L	20	
2 1/2 Ton																											
21	Amer. LaF...Chief 9R	3900	180	Op	14000	6200	P 34x7	DP34x7	Own	6-3 1/2 x 5	331 0	33.7	65-2100	L	G	C	2 1/2	9	4	FP	On	Str	V	D-R	D-R	21	
22	Atterbury.....50	189	202	14000	5800	B 8.25/20	DB8.25/20	Lyc ASD	6-3 1/2 x 4 1/2	298 2	33.7	85-2800	L	G	C	2 1/2	13 1/2	7	FP	Ha	Ze	M	A-L	A-L	22		
23	Autocar.....D	3500	150	192	16000	5710	P 34x7	DP34x7	Own	6-4 x 4 1/2	358 0	38.4	82-2400	L	G	C	2 1/2	13 1/2	7	FP	Pe	Str	V	D-R	D-R	23	
24	Available.....T-23	Op	Op	14000	5600	P 32x6	DP32x6	Wau MS	6-3 1/2 x 4 1/2	298 0	33.8	67-2300	L	G	C	2 1/2	12 1/2	7	FP	Wa	Sch	V	D-R	D-R	24		
25	Available.....T-27	Op	Op	14000	5900	P 32x6	DP32x6	Wau MS	6-3 1/2 x 4 1/2	298 0	33.8	67-2300	L	G	C	2 1/2	12 1/2	7	FP	Wa	Sch	V	D-R	D-R	25		
26	Brockway.....T-27	Op	Op	14000	5900	P 32x6	DP32x6	Wau MS	6-3 1/2 x 4 1/2	298 0	33.8	67-2300	L	G	C	2 1/2	12 1/2	7	FP	Wa	Sch	V	D-R	D-R	26		
27	Brockway.....2 1/2-3T-141	170	200	17000	6200	P 34x7	DP34x7	Con	6-4 x 4 1/2	311 0	33.8	73-2400	H	C	C	2 1/2	13 1/2	7	FP	CC	No	Ze	V	D-R	D-R	27	
28	Chicago.....1-24-A	160	208	13273	5773	B 8.25/20	DB8.25/20	Wau 6ML	6-4 x 4 1/2	358 0	38.4	77-2200	L	G	C	2 1/2	12 1/2	7	FP	Wa	Str	V	D-R	D-R	28		
29	Coleman.....C30	120	144	12800	7700	B 9.00/20	B 9.00/20	Bud DW6	6-3 1/2 x 5	331 0	27.3	73-2400	L	G	C	2 1/2	9 1/2	7	FP	Bu	Ze	V	D-R	D-R	29		
30	Commerce.....60	4580	175	192	17000	7000	P 36x6	DP36x6	Bud BA-6	6-4 x 4 1/2	410 9	40.8	83-2100	L	G	C	2 1/2	9 1/2	4	PC	Bu	Ze	V	D-R	D-R	30	
31	Commerce.....60	4580	175	192	17000	7000	P 36x6	DP36x6	Bud DS6	6-3 1/2 x 5	309 6	31.5	56-2100	L	G	C	2 1/2	7 1/2	4	PC	No	Ze	V	D-R	D-R	31	
32	Concor.....CD	1940	160	196	17000	5200	B 7.50/20	DB7.50/20	Lyc ASD	6-3 1/2 x 4 1/2	299 0	33.7	85-2800	L	G	C	2 1/2	13 1/2	7	FP	Ha	Ze	M	A-L	A-L	32	
33	Day Elder.....130	2225	157	199	16000	6600	B 7.50/20	DB7.50/20	Con 16R	6-4 x 4 1/2	311 0	38.4	73-2400	H	C	C	2 1/2	13 1/2	7	FP	No	Ze	V	D-R	D-R	33	
34	Diamond.....T-26	2130	140	185	13500	4870	P 32x6	DP32x6	Her WXB	6-3 1/2 x 4 1/2	298 0	33.7	72-2500	L	G	C	2 1/2	13 1/2	7	FP	No	Ze	V	D-R	D-R	34	
35	Diamond T. 551-2 1/2-3	2250	168	186	15500	6000	B 7.50/20	DB7.50/20	Her WXC	6-4 x 4 1/2	339 38	38.4	74-2400	L	G	C	2 1/2	13 1/2	7	FP	PC	Bu	Ze	V	D-R	D-R	35
36	Douglas.....CD4	3855	190	Op	17500	5860	P 34x7	P 36x8	Bud EBU-I	4-4 1/2 x 5 1/2	312 0	28.9	49-1900	L	G	C	2 1/2	10 1/2	3	PC	Bu	Ze	E	L-N	L-N	36	
37	Douglas.....CD6	3955	190	Op	17500	5800	P 34x7	P 36x8	Bud DW6	6-3 1/2 x 5	331 0	33.7	73-2400	L	G	C	2 1/2	9 1/2	4	PC	Bu	Ze	E	L-N	L-N	37	
38	Fagel.....250	2750	178	198	17000	5750	P 34x7	DP34x7	Wau MK	6-4 1/2 x 4 1/2	381 40	40.8	82-2200	L	G	C	2 1/2	12 1/2	7	FP	No	Ze	V	D-R	D-R	38	
39	Federal.....A6T	2185	151	176	15000	5110	P 32x6	DP32x6	Con 16C	6-3 1/2 x 4 1/2	248 3	27.3	64-2500	L	C	C	2 1/2	10 1/2	7	FP	PC	KP	Ze	V	D-R	D-R	39
40	Federal.....A6TW	2390	151	176	15000	5110	P 32x6	DP32x6	Con 16C	6-3 1/2 x 4 1/2	248 3	27.3	64-2500	L	C	C	2 1/2	10 1/2	7	FP	PC	KP	Ze	V	D-R	D-R	40
41	Federal.....T3W	2130	140	185	13500	4870	P 32x6	DP32x6	Her WXB	6-3 1/2 x 4 1/2	298 0	33.7	72-2500	L	G	C	2 1/2	13 1/2	7	FP	No	Ze	V	D-R	D-R	41	
42	Federal.....T8WF	2285	148	185	15000	5400	P 32x6	DP32x6	Con 16C	6-3 1/2 x 4 1/2	248 3	27.3	64-2500	L	C	C	2 1/2	10 1/2	7	FP	PC	KP	Ze	V	D-R	D-R	42
43	Fisher-Standard.....25A	156	162	13200	4000	P 32x6	DP32x6	Con 16C	6-3 1/																		

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System		Electrical System		Line Number						
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
3 Ton—Cont'd																											
1	Brookway.....	170	170	200	17000	7100	P 34x7	DP34x7	Con	6-4 1/2 x 5 1/2	380.9	40.8	89-2400	H C C C C C	N	2 1/2	13 1/2	7	CC	CC	CC	CC	CC	CC	CC	1	
2	Brookway.....	175	170	224	17500	7200	P 34x7	DP34x7	Con	6-4 1/2 x 5 1/2	427.5	45.9	100-2400	H C C C C C	N	2 1/2	13 1/2	7	CC	CC	CC	CC	CC	CC	CC	2	
3	Brookway.....	190	168	204	19000	7625	P 34x7	DP34x7	Con	6-4 1/2 x 5 1/2	380.9	40.8	89-2400	H C C C C C	N	2 1/2	13 1/2	7	CC	CC	CC	CC	CC	CC	CC	3	
4	Chicago.....	1-30-A	160	208	15740	6740	B 9.00/20	DB9.00/20	Wau 6ML	6-4 1/2 x 5 1/2	358	38.4	77-2200	L G C C C C	N	2 1/2	12 1/2	7	FP	FP	FP	FP	FP	FP	FP	4	
5	Clinton.....	65	184	Op	14500	5925	S 34x5	DS34x5	Bud ETU	4-4 1/2 x 5 1/2	312.0	28.9	49-1900	L G C C C C	N	2 1/2	10 1/2	4	FP	FP	FP	FP	FP	FP	FP	5	
6	Coleman.....	D40	130	180	17000	8500	B 9.75/24	B 9.75/24	Bud DW 6	6-3 1/2 x 5	330.0	33.7	73-400	L G C C C C	N	2 1/2	9	4	FP	FP	FP	FP	FP	FP	FP	6	
7	Commerce.....	60	4680	175	192	7100	P 36x6	DP36x7	Bud BA-6	6-4 1/2 x 5 1/2	410.9	40.8	83-2100	L G C C C C	N	2 1/2	9 1/2	4	FP	FP	FP	FP	FP	FP	FP	7	
8	Concord.....	JX-6	4200	154	174	17200	6700	P 34x7	DP34x7	Bud DW 6	6-3 1/2 x 5	330.0	33.7	73-2100	L G C C C C	N	2 1/2	9 1/2	4	FP	FP	FP	FP	FP	FP	FP	8
9	Concor.....	CE	2530	160	224	20000	5950	B 8.25/20	DB8.25/20	Lyc TS	6-3 1/2 x 5	353.8	35.2	98-2700	L G C C C C	N	2 1/2	10	4	FP	FP	FP	FP	FP	FP	FP	9
10	Concor.....	CEB	190	190	17000	7200	B 7.50/20	DB7.50/20	Con 20-R	6-4 1/2 x 5 1/2	380.8	40.8	90-2200	H C C C C C	N	2 1/2	13 1/2	7	FP	FP	FP	FP	FP	FP	FP	10	
11	(Z) Corbitt.....	12W6	165	220	14700	4910	B 7.50/20	DB7.50/20	Con 16R	6-4 1/2 x 5 1/2	311.0	38.4	72-2400	H C C C C C	N	2 1/2	11 1/2	7	FP	FP	FP	FP	FP	FP	FP	11	
12	(Z) Corbitt.....	12B6	163	220	14700	4870	B 7.50/20	DB7.50/20	Con 16R	6-4 1/2 x 5 1/2	311.0	38.4	72-2400	H C C C C C	N	2 1/2	11 1/2	7	FP	FP	FP	FP	FP	FP	FP	12	
13	Day-Elder.....	160	2795	156	204	16000	6800	B 7.50/20	DB9.00/20	Con 18R	6-4 1/2 x 5 1/2	339.3	38.4	82-2400	H C C C C C	N	2 1/2	13 1/2	7	FP	FP	FP	FP	FP	FP	13	
14	Diamond T.....	551	2250	168	186	15500	6000	B 7.50/20	DB7.50/20	Her WXC	6-4 1/2 x 5 1/2	341.0	38.4	74-2400	H C C C C C	N	2 1/2	13 1/2	7	FP	FP	FP	FP	FP	FP	14	
15	Diamond T.....	504	2650	166	208	17500	6350	B 8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 5 1/2	339.0	31.5	74-2400	L G C C C C	N	2 1/2	13 1/2	7	FP	FP	FP	FP	FP	FP	15	
16	Diamond T.....	506	2950	174	240	17500	6350	B 8.25/20	DB8.25/20	Her WXC3	6-4 1/2 x 5 1/2	384.0	43.3	85-2200	L G C C C C	N	2 1/2	13 1/2	7	FP	FP	FP	FP	FP	FP	16	
17	Diamond T 603-3.4 Ton	3300	169	230	20000	7300	B 9.00/20	DB9.00/20	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	94-2200	L G C C C C	N	2 1/2	15	4	FP	FP	FP	FP	FP	FP	FP	17	
18	Diamond T 606-3.4 Ton	3400	177	244	19000	7300	B 9.00/20	DB9.00/20	Her YXC2	6-4 1/2 x 5 1/2	453	48.6	100-2200	L G C C C C	N	2 1/2	15	4	FP	FP	FP	FP	FP	FP	FP	18	
19	Dodge Bros.....	1515	135	135	12250	4235	P 32x6	DP32x6	Own	6-3 1/2 x 5	241.0	27.3	78-3000	L G C C C C	N	2 1/2	11 1/2	7	FP	FP	FP	FP	FP	FP	FP	19	
20	Dodge Bros.....	1565	165	165	12220	4520	P 32x6	DP32x6	Own	6-3 1/2 x 5	241.0	27.3	78-3000	L G C C C C	N	2 1/2	11 1/2	7	FP	FP	FP	FP	FP	FP	FP	20	
21	Dodge Bros.....	1615	185	185	12715	4715	P 32x6	DP32x6	Own	6-3 1/2 x 5	241.0	27.3	78-3000	L G C C C C	N	2 1/2	11 1/2	7	FP	FP	FP	FP	FP	FP	FP	21	
22	Dodge Bros.....	F-60	2545	146	146	18979	5543	P 32x6	DP32x6	Own	6-3 1/2 x 5	309.6	31.5	96-3000	L G C C C C	N	2 1/2	11 1/2	7	FP	FP	FP	FP	FP	FP	FP	22
23	Dodge Bros.....	F-61	2575	170	170	19429	5789	P 32x6	DP32x6	Own	6-3 1/2 x 5	309.6	31.5	96-3000	L G C C C C	N	2 1/2	11 1/2	7	FP	FP	FP	FP	FP	FP	FP	23
24	Dodge Bros.....	F-62	2695	195	195	19879	5901	P 32x6	DP32x6	Own	6-3 1/2 x 5	309.6	31.5	96-3000	L G C C C C	N	2 1/2	11 1/2	7	FP	FP	FP	FP	FP	FP	FP	24
25	Douglas.....	D4	4010	186	Op	20000	6500	S 36x5	S 36x10	Bud YBU-I	4-4 1/2 x 6	381.0	32.4	50-1400	L G C C C C	N	2 1/2	9 1/2	4	FP	FP	FP	FP	FP	FP	FP	25
26	Douglas.....	D6	4430	186	Op	20000	6800	P 36x6	DP36x7	Bud YBU-I	4-4 1/2 x 6	386.4	38.4	78-2300	L G C C C C	N	2 1/2	9 1/2	4	FP	FP	FP	FP	FP	FP	FP	26
27	Douglas.....	D6 5p.	5500	216	Op	22000	7500	P 38x7	DP40x8	Bud K428	6-4 1/2 x 5 1/2	411.0	40.8	83-2100	L G C C C C	N	2 1/2	9 1/2	4	FP	FP	FP	FP	FP	FP	FP	27
28	Duplex.....	FAC	4250	166	Op	16000	7200	S 34x5	S 36x8	Bud EBU-1	6-4 1/2 x 5 1/2	412.0	38.9	57-2100	L G C C C C	N	2 1/2	10 1/2	4	FP	FP	FP	FP	FP	FP	FP	28
29	Duplex.....	SAC	4750	166	Op	16000	7400	S 34x5	S 36x8	Bud K428	6-4 1/2 x 5 1/2	411.0	40.8	83-2100	L G C C C C	N	2 1/2	9 1/2	4	FP	FP	FP	FP	FP	FP	FP	29
30	Fagel.....	300	3250	178	196	6250	B 9.00x20	DB9.00x20	Wau MK	6-4 1/2 x 5 1/2	381.0	40.8	82-2200	L G C C C C	N	2 1/2	12 1/2	7	FP	FP	FP	FP	FP	FP	FP	30	
31	Federal T10B 2 1/2-3 T.	2740	165	201	18000	6550	P 34x7	DP34x7	Con 16R	6-4 1/2 x 5 1/2	311	38.4	75-2200	H C C C C C	N	2 1/2	13 1/2	7	FP	FP	FP	FP	FP	FP	FP	31	
32	Federal T10W 2 1/2-3 T.	2915	165	201	18000	6550	P 34x7	DP34x7	Con 16R	6-4 1/2 x 5 1/2	311	38.4	75-2200	H C C C C C	N	2 1/2	13 1/2	7	FP	FP	FP	FP	FP	FP	FP	32	
33	Fisher-Std.....	30A	160	Op	16000	5800	P 34x7	DP34x7	Con 11R	6-3 1/2 x 5 1/2	291.9	35.0	64-2500	H C C C C C	N	2 1/2	12 1/2	7	FP	FP	FP	FP	FP	FP	FP	33	
34	Fisher-Std.....	31A	160	Op	16000	5800	P 34x7	DP34x7	Con 11R	6-3 1/2 x 5 1/2	291.9	35.0	64-2500	H C C C C C	N	2 1/2	12 1/2	7	FP	FP	FP	FP	FP	FP	FP	34	
35	F.W.D.....	B	4200	124	156	6460	S 36x6	S 36x6	Own A	6-4 1/2 x 5 1/2	398.0	36.1	56-1350	L G C C C C	N	2 1/2	12	4	FP	FP	FP	FP	FP	FP	FP	35	
36	Garford.....	60	4680	175	192	7100	P 36x6	DP36x7	Bud BA6	6-4 1/2 x 5 1/2	410.9	40.8	83-2100	L G C C C C	N	2 1/2	9 1/2	4	FP	FP	FP	FP	FP	FP	FP	36	
37	(X) Gen. Mot.....	T-26	1450	130	164	11000	4025	B 7.00/20	DB7.00/20	Own 257	6-3 1/2 x 5	257.5	28.3	76-2500	H G C C C C	N	2 1/2	8 1/2	4	FP	FP	FP	FP	FP	FP	FP	37
38	(X) Gen. Mot.....	T-30	1750	141	164	12500	4705	P 32x6	DP32x6	Bulek	6-3 1/2 x 5	257.5	28.3	76-2500	H G C C C C	N	2 1/2	8 1/2	4	FP	FP	FP	FP	FP	FP	FP	38
39	(X) Gen. Mot.....	T-31	1850	141	181	14000	4635	P 32x6	P 36x8	Own 257	6-3 1/2 x 5	257.5	28.3	76-2500	H G C C C C	N	2 1/2	8 1/2	4	FP	FP	FP	FP	FP	FP	FP	39
40	(X) Gen. Mot.....	T-42	1950	141	181	15000	4905	P 36x6	DP36x6	Bulek	6-3 1/2 x 5	257.5	28.3	76-2500	H G C C C C	N	2 1/2	8 1/2	4	FP	FP	FP	FP	FP	FP	FP	40
41	(X) Gen. Mot.....	T-44	2050	141	181	16000	5005	P 36x6	DP36x																		

Line Number	Clutch	Gear Set	Rear Axle	Front Axle	Brakes	Frame	Body Mounting Data	Springs	Auxiliary Type	Line Number																	
Line Number	Radiator Make	Type and Make	Make and Model	Location	No. of Forward Speeds	Aux. Locat. and Speeds	Universal Make and No.	Make and Model	Final Drive and Type	Drive and Torque	Gear Ratios	Reduc. in High	Reduc. in Low	Make and Model	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type	Line Number
1	G&O	D.B-L	B-L	U	4	No	Spl 3	Wis	2F	R 6.41	46.6	Shu	L41HV	380	CD	Ros	8x3x1/4	T	142	84	34	40x2 1/2	54x3	1			
2	G&O	P.B&B	B-L	U	4	No	Spl 3	Wis	2F	R 6.41	46.6	Shu	L41HV	380	CD	Ros	8x3x1/4	T	142	84	34	40x2 1/2	54x3	2			
3	Chi	D.B-L	B-L 51	U	4	No	Spl 3	Tim 65720H	WF	R 7.75	46.2	Tim 33020H	L41HV	631	TD	Ros	7x4x1/2	Opt	132	83	34	40x2 1/2	54x3	3			
4	Per	D.B-L	B-L 55	U	4	No	Blo 4	TT 65706 HF	WF	R 8.50	45.5	Tim 15302	T21M	185	2I	Ros	8x3 1/2 x 1/4	Opt	144	89	30	41 1/2 x 2 1/2	54 1/2 x 3	4			
5	Per	D.Ful	Ful RU 16	U	4	No	Spl 5	Wis	2F	R 8.33	159	Wis	W241M	584	FX	Han	7x3 1/2 x 1/4	Opt	156	97	34	42x2 1/2	54x3	5			
6	Lon	Ful	Ful VU	U	4	No	Blo	Tim 65706DH	WF	R 9.3	63.0	Tim 15733H	L41HV	520	TD	Ros	7x3x1/4	Opt	132	83	34	40x2 1/2	54x3	6			
7	Own	D.B-L	B-L 51	U	4	No	Blo	Tim 65706D	WF	R 9.3	49.7	Tim 15300H	T21MV	520	TD	Ros	7x3x1/4	Opt	132	83	34	40x2 1/2	54x3	7			
8	Per	D.Jon	Cov Rus-4	U	4	No	Blo	Tim 58200	BF	H 5.57	35.6	Col 5500	L41HV	659	FD	Ros	12x2 1/2 x 1/4	Opt	127	74 1/2	34	42x2 1/2	56x3 1/2	8			
9	Per	D.Jon	Cov Rus-4	U	4	No	Blo 3	Tim 58200H	BF	H 4.55	29.1	Eat 423	L41HV	578	TX	Ros	8 1/2 x 3 1/2 x 1/4	Opt	156	90	41 1/2	44x2 1/2	60x3	9			
10	Per	P.B-L	B-L 314	U	4	No	Spl 3	Tim 64800H	WF	H Opt	Opt	Tim 33000H	L41H	578	TX	Ros	7x3 1/2 x 1/4	Opt	134	82	34	40x2 1/2	54x3	10			
11	Per	P.B-L	B-L 314	U	4	No	Spl 3	Tim 56200H	BF	H Opt	Opt	Tim 33000H	L41H	578	TX	Ros	7x3 1/2 x 1/4	Opt	134	82	34	40x2 1/2	54x3	11			
12	Per	P.B-L	B-L 51	U	4	No	Spl 3	Tim 56200H	WF	R 6 1/4	36.1	Tim 33000H	L41H	578	TX	Ros	7x3 1/2 x 1/4	Opt	132	80 1/2	34	42x2 1/2	56x3	12			
13	G&O	D.Cov	Cov	U	4	No	Spl 3	Tim 58200H	SF	R Opt	Opt	Shu 5582B	L41HV	408	TD	Ros	6 1/2 x 3x1/4	Opt	135	81 1/2	34	45 1/2 x 2 1/2	56x3	13			
14	G&O	D.Cov	Cov	U	4	No	Spl 4	Wis 69317B-L	2F	R Opt	Opt	Shu 5582B	L41HV	408	TD	Ros	6 1/2 x 3x1/4	Opt	126	80 1/2	34	45 1/2 x 2 1/2	56x3	14			
15	G&O	D.Cov	Cov	U	4	No	Spl 4	Wis 69317B-L	2F	R Opt	Opt	Shu 5582B	L41HV	408	TD	Ros	6 1/2 x 3x1/4	Opt	126	80 1/2	34	45 1/2 x 2 1/2	56x3	15			
16	G&O	D.Cov	Cov	U	4	No	Spl 4	Wis 1237H	2F	R Opt	Opt	Shu 5582B	L41HV	499	TD	Ros	6 1/2 x 3x1/4	Opt	120	79 1/2	34	45 1/2 x 2 1/2	56x3	16			
17	G&O	D.Cov	Cov	U	4	No	Spl 4	Wis 69317 BL	2F	H Opt	Opt	Shu 5582B	L41HV	499	TD	Ros	6 1/2 x 3x1/4	Opt	138	88	34	45 1/2 x 2 1/2	56x3	17			
18	Fed	P.	Own	U	4	No	Own 3	Own	S 1/2	H 7.13	46.3	Own	O41H	382	TX	Han	7x2 1/2 x 1/4	Opt	82 1/2	54 1/2	34	39x2 1/2	45x3	18			
19	Fed	P.	Own	U	4	No	Own 3	Own	S 1/2	H 7.13	46.3	Own	O41H	382	TX	Han	7x2 1/2 x 1/4	Opt	82 1/2	54 1/2	34	39x2 1/2	45x3	19			
20	Fed	P.	Own	U	4	No	Own 3	Own	S 1/2	H 7.13	46.3	Own	O41H	382	TX	Han	7x2 1/2 x 1/4	Opt	82 1/2	54 1/2	34	39x2 1/2	45x3	20			
21	Fed	P.	Own	U	4	No	Own 3	Own	S 1/2	H 7.13	46.3	Own	O41H	382	TX	Han	7x2 1/2 x 1/4	Opt	82 1/2	54 1/2	34	39x2 1/2	45x3	21			
22	Lon	D.Ful	Ful VU	U	4	No	Blo	Tim 65706DH	WF	H 8.5	63.0	Tim 15733H	L41H	584	FX	Han	7x3 1/2 x 1/4	Opt	136	99 1/2	34	42x2 1/2	54x3	22			
23	Lon	D.Ful	Ful VU	U	4	No	Blo	Tim 65706DH	WF	H 8.5	63.0	Tim 15733H	L41H	584	FX	Han	7x3 1/2 x 1/4	Opt	136	99 1/2	34	42x2 1/2	54x3	23			
24	Lon	D.Ful	Ful VU	U	4	No	Blo	Tim 65706DH	WF	H 8.5	63.0	Tim 15733H	L41H	584	FX	Han	7x3 1/2 x 1/4	Opt	136	99 1/2	34	42x2 1/2	54x3	24			
25	Own	D.Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W21MV	503	CX	Ros	8x2 1/2 x 1/4	Opt	168	98	31	45x3	54x3	25			
26	Own	D.Ful	Ful RU 16	U	4	No	Blo 4	Wis 892A	2F	R 7.25	34.8	Shu 5550	W21MV	503	CX	Ros	8x2 1/2 x 1/4	Opt	168	98	31	45x3	54x3	26			
27	Own	D.Ful	Ful HOG	U	4	No	Blo 4	Wis 1418	2F	R 8.18	6.7	Shu 615	W21MV	503	CX	Ros	10x2 1/2 x 1/4	Opt	223	121	31	45x3	54x4	27			
28	Mod	D.B-L	B-L 51	U	5	No	Cle	Tim 65706	WF	R 8.5	45.5	Shu 5550	T21M	...	2	Ros	7x3x1/4	Opt	...	...	34	39x2 1/2	52x3	28	
29	Mod	D.B-L	B-L 55	U	5	No	Cle	Tim 65706	WF	R 8.5	45.5	Shu 5550	T21M	...	2	Ros	7x3x1/4	Opt	...	...	34	39x2 1/2	52x3	29	
30	Per	P.B-L	B-L 314	U	4	No	Spl 3	Tim 58200H	BF	H 6.33	41.5	Tim 33020H	L41HV	398	TX	Ros	7 1/2 x 3 1/2 x 1/4	Opt	167 1/2	97 1/2	34	41x2 1/2	56x3	30			
31	Lon	P.B&B	Own	U	4	No	P-S 4	Tim 58200H	BF	R 6.33	44.5	Own	L41HV	659	TI	Ros	7 1/2 x 3 1/2 x 1/4	Opt	119	81	34	42x2 1/2	54x3	31			
32	Lon	P.B&B	Own	U	4	No	P-S 4	Tim 58200H	WF	R 6.33	44.5	Own	L41HV	659	TI	Ros	7 1/2 x 3 1/2 x 1/4	Opt	119	81	34	42x2 1/2	54x3	32			
33	Lon	B-L	B-L 314	U	4	No	Spl 4	Tim 56200H	FF	R 6.16	40.6	Tim 33000H	L41H	577	CD	Ros	7 1/2 x 3 1/2 x 1/4	Opt	120	74	34	43x2 1/2	54x3	33			
34	Lon	B-L	B-L 51	U	4	No	Spl 4	Tim 56200H	FF	R 6.16	40.6	Tim 33000H	L41H	577	CD	Ros	7 1/2 x 3 1/2 x 1/4	Opt	120	74	34	43x2 1/2	54x3	34			
35	McC	O.M-E	Cot DAF	U	3	Opt	Blo 4	Own B	BF	H 8.9	35.6	Own B	O41M	522	2I	Ros	5 1/2 x 2 1/2 x 1/4	Opt	130	93	36	42 1/2 x 2 1/2	52 1/2 x 2 1/2	35			
36	Lon	D.Ful	Ful VU	U	4	No	Blo	Tim 65706DH	WF	H 8.5	63.0	Tim 15733H	L41H	584	FX	Han	7x3 1/2 x 1/4	Opt	136	99 1/2	34	42x2 1/2	54x3	36			
37	Lon	D.Own	Own	U	4	No	Spl 4	Own	S 1/2	H 5.63	28.8	Own	B41M	427	TX	Jac	6 1/2 x 3x1/4	Opt	87	48	34	38x2 1/2	50x3	37			
38	Lon	D.Own	Own	U	4	No	Spl 4	Own	S 1/2	H 5.63	28.8	Own	B41M	427	TX	Jac	6 1/2 x 3x1/4	Opt	87	48	34	38x2 1/2	50x3	38			
39	Lon	D.Own	Own	U	4	No	Spl 4	Own	S 1/2	H 5.63	28.8	Own	B41M	427	TX	Jac	6 1/2 x 3x1/4	Opt	87	48	34	38x2 1/2	50x3	39			
40	Lon	D.Own	Own	U	4	No	Spl 4	Own	S 1/2	H 5.63	28.8	Own	B41M	427	TX	Jac	6 1/2 x 3x1/4	Opt	87	48	34	38x2 1/2	50x3	40			
41	Lon	D.Own	Own	U	4	No	Spl 4	Own	S 1/2	H 5.63	28.8	Own	B41M	427	TX	Jac	6 1/2 x 3x1/4	Opt	87	48	34	38x2 1/2	50x3	41			
42	Lon	D.Own	Own	U	4	No	Spl 4	Own	S 1/2	H 5.63	28.8	Own	B41M	427	TX	Jac	6 1/2 x 3x1/4	Opt	87	48	34	38x2 1/2	50x3	42			
43	McC	P.B-L	B-L 51-5	U	5	No	Spl 2	Tim 65706	WF	R 8.5	45.5	Shu 5550	L41H	584	FX	Han	7x3 1/2 x 1/4	Opt	136	99 1/2	34	42x2 1/2	54x3	43			
44	McC	P.B-L	B-L 51-5	U	5	No	Spl 2	Tim 65706	WF	R 8.5	45.5	Shu 5550	L41H	584	FX	Han	7x3 1/2 x 1/4	Opt	136	99 1/2	34	42x2 1/2	54x3	44			
45	Per	D.Jon	Cov Rus-4	U	4	No	Blo	Tim 58200	BF	H 5.57	35.6	Col 5500	L41HV	659	FD	Ros	12x2 1/2 x 1/4	Opt	127	74 1/2	34	42x2 1/2	56x3	45			
46	Per	D.Jon	Cov Rus-4	U	4	No	Blo 3	Tim 58200H	BF	H 4.55	29.1	Eat 423	L41HV	658	FD	Ros	8 1/2 x 3 1/2 x 1/4	Opt	156	90	41 1/2	44x2 1/2	60x3	46			
47	Own	D.Ful	Ful JUV	U	5	No	M.M.6	Tim 56200H	SF	H 7.25	55.0	Tim 3100H	L41H	...	CD	Ros	9x3 1/2 x 1/4	Opt	110	...	34	40x2 1/2	54x3	47			
48	Own	D.Ful	Ful JUV	U	5	No	M.M.6	Tim 56200H	SF	H 7.25	55.0	Tim 3100H	L41H	...	CD	Ros	9x3 1/2 x 1/4	Opt	110	...	34	40x2 1/2	54x3	48			
49	Own	D.Ful	Ful JUV	U	5	No	M.M.6	Tim 56200H	SF	H 7.25	55.0	Tim 3100H	L41H	...	CD	Ros	9x3 1/2 x 1/4	Opt	110	...	34	40x2 1/2	54x3	49			
50	Chi	D.B-L	B-L 51	U	4	No	Spl 3	Tim 65706H	WF	R 7.75	46.2	Tim 15733H	L41HV	490	FX	Ros	6x2 1/2 x 1/4	Opt	97	64 1/2	34	41 1/2 x 2 1/2	54 1/2 x 3	50			
51	Chi	D.B-L	B-L 51	U	4	No	Spl 3	Tim 65706H	WF	R 7.75	46.2	Tim 15733H	L41HV	490	FX	Ros	6x2 1/2 x 1/4	Opt	97	64 1/2	34	41 1/2 x 2 1/2	54 1/2 x 3	51			
52	You	D.B-L	B-L 51-5	U	5	No	Blo 3	Wis 6600	2F	R 7.75	46.2	Shu 550	W21M	438	CD	Ros	6x3x1/4	Opt	97	64 1/2	34	41 1/2 x 2 1/2	54 1/2 x 3	52			
53	You	D.B-L	B-L 51-5	U	5	No	Blo 3	Wis 6617	2F	R 6.35	37.8	Shu 5572	L41H	420	CD	Ros	8x3x1/4	Opt	107	79	34	41x2 1/2	54x3	53			
54	You	P.B&B	Ful MLU	U	4	No	Blo 3	Tim 65706	WF	H 6.37	40.5	Shu 5550	L41H	307	CD	Ros	8x3x1/4	Opt	107	79	34	41x2 1/2	54x3	54			
55	You	P.B&B	B-L 51-5	U	5	No	Blo 3	Wis 1237Q	2F	R 8.64	51.5	Shu 5550	W21M	420	CD	Ros	6x3x1/4	Opt	91	58 1/2	34	41 1/2 x 2 1/2	54 1/2 x 3	55			
56	You	D.B-L	B-L 51-5	U	5	No	Blo 3	Wis 1237Q	2F	R 8.64	51.5	Shu 5550	W21M	420	CD	Ros	6x3x1/4	Opt	91	58 1/2	34	41 1/2 x 2 1/2	54 1/2 x 3	56			
57	G&O	P.B&B	B-L	U	4	No	Spl 2																				

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System		Electrical System		Line Number						
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
3½ Ton—Cont'd																											
1	Available.....T-43	Op	Op	19000	7950	P 36x8	DP36x8	Wau SRL	6-4½x5½	462.0	45.9	88-2200	L	G	C	3	13½	7	FP	Wa	Zen	V	M	D-R	D-R	1
2	Brookway.....3-4T. 195	.....	170	224	19500	7500	P 36x8	DP36x8	Con	6-4½x5½	380.9	40.8	85-2400	H	C	B	3	13½	7	CC	KP	Zen	M	A-L	A-L	2
3	Clinton.....85-6	4400	190	Op	19000	5975	P 34x7	DP34x7	Bud BUS	6-4½x5½	386.4	38.7	74-2400	L	G	C	3	13½	7	CC	No	Str	V	D-R	D-R	3	
4	ColemanD-40X 3½-54	.....	130	184	21100	9700	B10.50/24	B10.50/24	Bud BA6	6-4½x5½	411.0	40.8	105-2200	L	G	C	3	13½	7	CC	V	A-L	A-L	A-L	A-L	4
5	Commerce.....50	5250	175	192	19400	8200	S 36x8	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	85-2000	L	G	C	3	13½	7	CC	No	Zen	V	D-R	D-R	5	
6	Concord.....JLX-6	4500	202	222	19400	7000	P 34x7	DP34x7	Bud BA6	6-4½x5½	411.0	40.8	85-2000	L	G	C	3	13½	7	CC	No	Zen	V	D-R	D-R	6	
7	Corbitt.....15B6	.....	174	220	17500	5870	P 34x7	DP34x7	Con 16R	6-4½x5½	311	38.4	72-2400	H	C	C	3	11½	7	FP	No	Zen	V	D-R	D-R	7
8	Corbitt.....15W6	.....	183	224	17500	6160	P 34x7	DP34x7	Con 16R	6-4½x5½	311	38.4	72-2400	H	C	C	3	11½	7	FP	No	Zen	V	D-R	D-R	8
9	Duplex.....EF	.....	130	.....	17000	6500	S 36x8	S 36x8	Bud EBU-I	6-4½x5½	312.0	28.9	72-2100	L	G	C	3	10½	7	FP	No	Zen	V	Els	A-L	9
10	Federal.....U6-3-3T	3860	165	218	20000	7220	P 34x7	DP34x7	Con 16R	6-4½x5½	339.0	38.4	85-2200	L	H	C	3	13½	7	CC	KP	Str	M	D-R	D-R	10	
11	Fisher-Std.....61-A	.....	155	.....	16800	5600	P 34x7	DP34x7	Con 16R	6-4½x5½	311	38.4	73-2400	H	G	C	3	13½	7	FP	No	Zen	V	D-R	D-R	11
12	F.W.D.....CU-6	5120	148	180	17800	7500	P 38x9	P 38x9	Wau SRS	6-4½x5½	411.0	40.8	82-2300	L	G	C	3	13½	7	PC	Ha	Zen	M	R-Bo	NE	12	
13	Garford.....80	5250	175	192	19400	8200	S 36x6	S 36x12	Bud BA6	6-4½x5½	411.0	40.8	83-2100	L	G	C	3	13½	7	CC	No	Zen	V	A-L	A-L	13	
14	(X) Gen. Mot. T-31	1845	141	181	14000	4695	P 32x6	DP32x6	Own 257	6-3½x4½	257.5	28.3	76-2500	H	G	C	3	8½	4	PC	Ha	Mar	M	D-R	D-R	14	
15	(X) Gen. Mot. T42	1960	141	181	15000	4905	P 36x6	DP36x6	Bulck	6-3½x4½	257.5	28.3	76-2500	H	G	C	3	8½	4	PC	Ha	Mar	M	D-R	D-R	15	
16	(X) Gen. Mot. T44	2050	141	181	16000	5005	P 36x6	DP36x6	Bulck	6-3½x4½	257.5	28.3	76-2500	H	G	C	3	8½	4	PC	Ha	Mar	M	D-R	D-R	16	
17	(X) Gen. Mot. T45	1990	141	181	16000	5050	P 32x6	DP32x6	Own 257	6-3½x4½	257.5	28.3	76-2500	H	G	C	3	8½	4	PC	Ha	Mar	M	D-R	D-R	17	
18	Gottfredson.....RW 76A	.....	.....	.....	21900	7500	B9.75/20	DB9.75/20	Bud K428	6-4½x5½	428.0	45.9	100-2400	L	G	C	3	11½	7	FP	Ha	Zen	M	D-R	D-R	18
19	Gottfredson.....RD 76A	.....	.....	.....	21900	7500	B9.75/20	DB9.75/20	Bud K428	6-4½x5½	428.0	45.9	100-2400	L	G	C	3	11½	7	FP	Ha	Zen	M	D-R	D-R	19
20	G-P 6-56, 3½-5	3325	158	195	15000	7100	B9.00/20	DB9.00/20	Lyc TS	6-3½x4½	353.0	36.5	97-2750	L	G	C	3	10½	4	PC	Mo	Str	M	A-L	A-L	20	
21	G-P 6-58, 3½-5	3485	158	195	15000	7200	B9.00/20	DB9.00/20	Lyc AEC	6-3½x4½	420.0	45.0	140-3000	L	G	C	3	11½	5	PC	Mo	Str	M	A-L	A-L	21	
22	(V) Hug.....C87, 87M	.....	.....	.....	21800	.....	P 36x8	DP36x8	Bud DW6	6-3½x5	330.0	33.7	70-2100	L	G	C	3	9	4	PC	No	Zen	V	R-Bo	D-R	22
23	Hug.....418	.....	160	205	.....	.....	P 36x8	DP36x8	Bud K428	6-4½x5½	428.0	45.9	102-2400	L	G	C	3	11½	7	CC	No	Zen	V	D-R	D-R	23
24	Indiana.....3-4T. 195	.....	170	224	19500	7500	P 36x8	DP36x8	Con	6-4½x5½	380.9	40.8	89-2400	H	C	N	3	13½	7	CC	KP	Str	M	A-L	A-L	24
25	International.....W2	3900	148	200	21000	8400	S 36x5	S36x10	Has 151	4-4½x5½	312.0	28.9	99-1800	H	C	A	2½	8½	3	PC	HS	Str	U	R-Bo	D-R	25	
26	Kiebler.....210	.....	190	192	21000	7100	B 9.00/20	DB 9.00/20	Con 20R	6-4½x5½	380.9	40.8	89-2400	H	C	A	2½	13½	7	CC	No	Str	M	D-R	D-R	26
27	Larabee.....65	4280	166	204	18400	7200	B 8.25/20	DB 8.25/20	Con 18R	6-4½x5½	339.3	38.4	82-2400	H	C	C	3	13½	7	FP	No	Zen	G	D-R	D-R	27	
28	Moreland 2½T.B13.15	2850	184	.....	15000	6315	B 8.25/20	DB 8.25/20	Her WXC	6-4½x5½	339.0	38.4	75-2400	L	G	C	3	13½	7	FP	No	Zen	M	A-L	A-L	28
29	Netco.....E 4500	140	200	.....	18500	7500	B9.75/20	B 9.75/20	Wau 6SRL	6-4½x5½	462.0	45.9	100-2400	L	G	A	3	13½	7	FP	Wa	Zen	M	A-L	A-L	29
30	Omort.....35	.....	150	150	21000	7600	P 36x8	DP36x8	Her WXC	6-4½x5½	339.3	38.4	73-2000	L	G	C	3	13½	7	FP	No	Zen	V	D-R	D-R	30
31	Oshkosh.....HC	5350	146	165	18500	8000	B 10.50/20	B 10.50/20	Her YXC	6-4½x5½	428.0	45.9	90-2000	L	G	C	3	15	7	CC	Ha	Zen	M	D-R	D-R	31	
32	Relay.....60DC	4745	175	192	.....	7800	P 38x7	DP40x8	Bud BA6	6-4½x5½	410.9	40.8	83-2100	L	G	C	3	15	7	CC	No	Zen	V	A-L	A-L	32
33	Relay.....80	5330	175	192	.....	8600	P 36x6	S 40x12	Bud BA 6	6-4½x5½	411.0	40.8	83-2100	L	G	C	3	15	7	CC	No	Zen	V	A-L	A-L	33
34	Schacht.....25H.3½-5	.....	146	213	.....	5800	B 9.00/20	DB9.00/20	Her WXC	6-3½x4½	298	33.7	86-2200	L	G	C	3	13½	7	PC	Mo	Str	G	A-L	A-L	34
35	Service.....80	5250	175	192	.....	8200	S 36x6	S 36x12	Bud BA 6	6-4½x5½	411.0	40.8	83-2100	L	G	C	3	13½	7	CC	Ha	Zen	V	A-L	A-L	35
36	Sterling.....FW97, FD97	.....	192	222	.....	7955	P 36x8	DP36x8	Wau MK	6-4½x5½	381.0	40.8	85-2500	L	G	C	3	12½	7	CC	Wa	Zen	M	D-R	D-R	36
37	SterlingFW97S, FD97S	.....	192	222	.....	8200	P 36x8	DP36x8	Wau SRL	6-4½x5½	462.0	45.9	102-2400	L	G	C	3	13½	7	CC	Wa	Zen	M	D-R	D-R	37
38	Sterling.....FC100	.....	192	222	.....	7500	P 36x8	DP36x8	Wau MK	6-4½x5½	381.0	40.8	85-2500	L	G	C	3	12½	7	CC	Wa	Zen	M	D-R	D-R	38
39	Stewart.....19X	3690	165	235	19000	7110	S 36x5	S 36x10	Lyc TS	6-3½x5	354.0	36.2	90-2750	L	G	C	3	10½	4	FP	Ha	Str	V	D-R	D-R	39	
40	Stewart.....38-6	3990	170	241	.....	7600	B9.00/20	DB9.00/20	Wau 6SRL	6-4½x5½	462.0	45.9	100-2000	L	G	C	3	12½	7	FP	Ha	Str	M	D-R	D-R	40
41	Stewart.....38-8	3990	170	241	.....	7600	B9.00/20	DB9.00/20	Lyc AE	6-3½x4½	420.0	44.4	130-2800	L	G	C	3	12½	5	FP	No	Str	M	D-R	D-R	41
42	Studebaker.....99	3795	84	.....	.....	5400	B 7.50/20	DB 7.50/20	Own	6-3½x4½	337.0	39.2	115-3200	L	G	C	3	9½	5	PC	No	Str	M	D-R	D-R	42
43	Walter.....FKD	6300	118	Op	21000	8100	B 9.00/24	DB9.00/24	Own 6	6-4½x5½	462.0	46.0	100-1800	L	G	C	3	13½	7	FP	On	Str	V	R-Bo	D-R	43	
44	Ward LaFrance 30B18	.....	197	209	18000	.....	B 9.00/20	DB9.00/20	Own	6-3½x4½	322	36.4	100-2400	L	G	C	3	10½	4	PC	Ha	Str	P	D-R	D-R	44
45	Ward-LaFrance 30R18	.....	197</																							

Line Number	Radiator Make	Clutch	Gear Set		Universal Make and No.	Rear Axle			Front Axle			Brakes		Frame		Body Mounting Data		Springs		Line Number						
			Type and Make	Make and Model		Location	No. of Forward Speeds	Aux. Locat. and Speeds	Final Drive and Type	Drive and Torque	Gear Ratios	Make and Model	Service	Area Service Brakes	Steering Gear Make	Dim. Side Rail	Type	Cap to Rear of Frame	Cap to Rear Axle		Width of Frame	Front	Rear	Auxiliary Type		
1	You G&O	D-B-L	B-L 60	A	U	7	No	Blo	Spl 3	Tim 65720 Wls	WF	R 8.5	80.7	Shu 5572	L41H	492	FD	Ros	7x2 1/2 x 1/2	P	Opt	32	40x2 1/2	50x3	1	
2	Per	D-B-L	B-L 55	A	U	4	No	Blo	Spl 4	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	L41HV	471	CD	Ros	8 1/2 x 3 1/2	P	Opt	84	40x2 1/2	54x3	2	
3	D-B-L	Ful	Ful R U16	A	U	8	A 2	Blo	Spl 4	Tim 65706 HP	WF	R 8.33	159	Wls	W2/41M	...	TD	Ros	12x2 1/2 x 1 1/2	C	Opt	144	94 1/2	50 1/2 x 3	3	
4	Lon	P.B.&B	B-L 60 Max	A	U	7	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	4
5	Own	D-B-L	B-L 51	A	U	4	No	Blo	Spl 3	Tim 65706D	WF	R 6.1	32.6	Tim 15300	L41H	660	TX	Ros	7x3 1/2 x 1/2	C	Opt	144	97	40x2 1/2	54x3	5
6	Per	P.B-L	B-L 314	A	U	4	No	Blo	Spl 3	Tim 58200	BF	H 8.0	86.0	Own	OP4M	660	TX	Ros	6x3 1/2 x 1/2	C	Opt	144	97	40x2 1/2	54x3	6
7	Lon	D-B-L	B-L 314	A	U	4	No	Blo	Spl 3	Tim 65200	WF	R 8.06	86.0	Own	OP4M	660	TX	Ros	6x3 1/2 x 1/2	C	Opt	144	97	40x2 1/2	54x3	7
8	Per	P.B-L	B-L 314	A	U	4	No	Blo	Spl 3	Tim 65200	WF	R 8.06	86.0	Own	OP4M	660	TX	Ros	6x3 1/2 x 1/2	C	Opt	144	97	40x2 1/2	54x3	8
9	Lon	D-B-L	B-L 60	A	U	4	No	Blo	Spl 4	Tim 65706 HP	WF	R 6.16	32.9	Tim 15300H	L41HV	767	RI	Ros	7 1/2 x 3 1/2 x 1/2	C	Opt	119	81 1/2	42x2 1/2	54x3	9
10	Lon	P.B.&B	B-L 51	A	U	4	No	Blo	Spl 4	Tim 58200H	BF	R 8.9	88.6	Own U	O4XM	252	2I	Ros	6 1/2 x 2 1/2	C	Opt	132	93	42 1/2 x 2 1/2	54x3	10
11	Per	O.H-S	Own	A	U	5	Op	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	B41M	524	TX	Jac	6 1/2 x 3x 1/2	P	Opt	144	94 1/2	50x3	11	
12	Lon	D.Own	Own	A	U	4	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	B41M	524	TX	Jac	6 1/2 x 3x 1/2	P	Opt	144	94 1/2	50x3	12	
13	Lon	D.Own	Own	A	U	4	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	B41M	524	TX	Jac	6 1/2 x 3x 1/2	P	Opt	144	94 1/2	50x3	13	
14	Lon	D.Own	Own	A	U	4	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	B41M	524	TX	Jac	6 1/2 x 3x 1/2	P	Opt	144	94 1/2	50x3	14	
15	Lon	D.Own	Own	A	U	4	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	B41M	524	TX	Jac	6 1/2 x 3x 1/2	P	Opt	144	94 1/2	50x3	15	
16	Lon	D.Own	Own	A	U	4	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	B41M	524	TX	Jac	6 1/2 x 3x 1/2	P	Opt	144	94 1/2	50x3	16	
17	McC	D-B-L	B-L 55-7	A	U	7	No	Spl	Spl 4	Tim 65720H	F	R 8.5	80.7	Tim 35000H	L41H	768	FD	Ros	8x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	17
18	McC	D-B-L	B-L 55-7	A	U	7	No	Spl	Spl 4	Tim 75720H	F	R 8.1	77.4	Tim 35000H	L41H	768	FD	Ros	8x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	18
19	Own	D-Ful	Ful VUOG	A	U	5	No	M.M.6	Pet 3	Tim 58200H	SF	R 7.80	56.0	Tim 33000H	L41H	768	FD	Ros	10x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	19
20	Own	D-Ful	Ful VUOG	A	U	5	No	M.M.6	Pet 3	Tim 58200H	SF	R 7.80	56.0	Tim 33000H	L41H	768	FD	Ros	10x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	20
21	You	D-B-L	B-L 55-7	A	U	7	No	Blo	Spl 4	Tim 58200H	SF	R 7.80	56.0	Tim 33000H	L41H	768	FD	Ros	10x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	21
22	You	D-B-L	B-L 51-5	A	U	4	No	Blo	Spl 4	Tim 58200H	SF	R 7.80	56.0	Tim 33000H	L41H	768	FD	Ros	10x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	22
23	G&O	D-B-L	B-L 51-5	A	U	4	No	Blo	Spl 4	Tim 58200H	SF	R 7.80	56.0	Tim 33000H	L41H	768	FD	Ros	10x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	23
24	Own	D.Own	Own	A	U	4	No	Blo	Spl 4	Tim 58200H	SF	R 7.80	56.0	Tim 33000H	L41H	768	FD	Ros	10x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	24
25	Own	P.Own	Own	A	U	5	No	Blo	Spl 4	Tim 58200H	SF	R 7.80	56.0	Tim 33000H	L41H	768	FD	Ros	10x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	25
26	Own	D-B-L	B-L 55	A	U	7	No	Spl	Spl 3	Tim 65720H	F	R 8.5	80.7	Tim 33000H	L41H	768	FD	Ros	8x3 1/2 x 1/2	C	Opt	107	59	34x2 1/2	50x3	26
27	Per	D-B-L	B-L 51	A	U	4	No	Pet 3	Pet 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	L41H	471	CD	Ros	8 1/2 x 3 1/2	P	Opt	84	40x2 1/2	54x3	27	
28	Lon	P.B-L	B-L 314	A	U	4	No	Pet 3	Pet 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	L41H	471	CD	Ros	8 1/2 x 3 1/2	P	Opt	84	40x2 1/2	54x3	28	
29	Mod	D-B-L	B-L 55	A	U	4	No	Pet 3	Pet 3	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	L41H	471	CD	Ros	8 1/2 x 3 1/2	P	Opt	84	40x2 1/2	54x3	29	
30	You	D-Ful	Ful MGO	A	U	8	A	Blo	Spl 4	Tim 65706 HP	WF	R 7.75	73.6	Tim 15302	L41H	471	CD	Ros	8 1/2 x 3 1/2	P	Opt	84	40x2 1/2	54x3	30	
31	Mod	D-B-L	B-L 60	A	U	7	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	31
32	Lon	Ful	Ful VU	A	U	5	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	32
33	Lon	P.B.&B	Cov SHO	A	U	8	A	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	33
34	You	P.B.&B	Ful MLU	A	U	4	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	34
35	Lon	P.B.&B	B-L 60 Max	A	U	7	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	35
36	Mod	D.Own	Own	A	U	4	Op	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	36
37	Mod	D.Own	Own	A	U	4	Op	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	37
38	Mod	D.Own	Own	A	U	4	Op	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	38
39	Mod	D-Ful	Ful	A	U	12	A	Spl	Spl 3	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	39
40	Mod	B-L	B-L	A	U	4	A3	Spl	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	40
41	Mod	B-L	B-L	A	U	4	A3	Spl	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	41
42	Lon	D.Own	Own	A	U	4	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	42
43	Own	Own	Own	A	U	5	No	Blo	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	520	TD	Ros	7x3x 1/2	C	Opt	144	88	40x2 1/2	54x3	43
44	Mod	P.B-L	B-L	A	U	4	Op	Spl	Spl 4	Tim 66700DP	WF	R 10.3	98.2	Tim 16302	T21MV	52										

Line Number	Make, Model and Capacity	General			Tire Size		Engine										Fuel System		Electrical System		Line Number						
		Chassis Price	Standard W.B.	Max. W.B. Furnished	Gross Vehicle Wt. (See Key Note)	Chassis Wt. (Stripped)	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Piston Displacement	N.A.C.C. Rated H.P.	Max. Brake H.P. at Specified R.P.M.	Valve Arrangement	Camshaft Drive	Piston Material	Dia. Main Bearings	Length Main Bearings	No. Main Bearings	Oiling System		Governor Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator, Starter Make	
4 Ton—Cont'd																											
1	Witt-Will.....R4	4440	159	159	21600	8000	P 9.75/20	DP 9.75/20	Con 20R	6-4 1/2 x 4 3/4	381	40.8	88-2200	H C	A	C	2 3/4	13 1/2	7	FP	No	Zen	E	D-R	D-R	1	
2	Witt-Will.....R4	4600	159	159	21600	8000	P 9.75/20	DP 9.75/20	Con 21R	6-4 1/2 x 4 3/4	427	45.9	100-2600	H C	A	C	2 3/4	13 1/2	7	FP	No	Zen	E	D-R	D-R	2	
3	Woods.....75	4960	190	Op	17500	7200	B 9.75/20	DP 9.75/20	Her WXC 3	6-4 1/2 x 4 3/4	479	51.2	104-2200	L	C	C	2 3/4	15	7	FP	Ha	Zen	M	D-R	D-R	3	
4	World.....DA-115	3595	168	182	17500	6100	P 36x8	DP 36x8	Lye HD	8-3 1/2 x 4 1/2	298.6	33.8	115-3300	L	C	C	2 3/4	10	5	PC	Ha	Zen	M	A-L	A-L	4	
4 1/2 Ton																											
5	Gottfredson RD,RW96A	5500	168	206	24000	8500	B 9.75/20	DB 9.75/20	Buda K479	6-4 1/2 x 4 3/4	479.0	51.2	100-2000	L	C	C	3	11 1/2	7	FP	Ha	Zen	M	D-R	D-R	5	
6	Larrabee 85.....	5500	168	206	23650	8800	B 9.75/20	DB 9.75/20	Con 21R	6-4 1/2 x 4 3/4	424.4	45.9	97-2400	H C	A	C	2 3/4	13 1/2	7	FP	No	Zen	M	D-R	D-R	6	
7	Moreland.....4T,B16,18	3025	184	184	18000	6695	B 9.00/20	DB 9.00/20	Her WXC	6-4 1/2 x 4 3/4	339.0	38.4	75-2400	L	C	C	2 3/4	13 1/2	7	FP	No	Zen	M	A-L	A-L	7	
8	Moreland.....4T,E16,18	3300	184	184	18000	6960	B 9.00/20	DB 9.00/20	Her WXC3	6-4 1/2 x 4 3/4	383.0	43.3	92-2400	L	C	C	2 3/4	13 1/2	7	FP	No	Zen	M	A-L	A-L	8	
9	Schacht.....30HA & 5 1/2	146	227	227	24000	6950	B 9.75/20	DB 9.75/20	Her WXC	6-4 1/2 x 4 3/4	339.0	38.4	73-2200	L	C	C	2 3/4	13 1/2	7	FP	Mo	Zen	G	A-L	A-L	9	
10	Schacht.....35H & 5 1/2	146	227	227	24000	7700	B 9.00/20	DB 9.00/20	Her WXC2	6-4 1/2 x 4 3/4	360.8	40.3	80-2200	L	C	C	2 3/4	13 1/2	7	FP	Mo	Zen	G	A-L	A-L	10	
11	Ward La France 45D	Op	Op	Op	24000	8600	P 36x8	DP 36x8	Wau SRL	6-4 1/2 x 5 1/2	462	45.9	97-2000	L	C	C	3	13 1/2	7	FP	Wa	Zen	M	D-R	D-R	11	
5 Ton																											
12	Acme.....10X Spec	192	Op	Op	23500	9400	B10.50/20	DB10.50/20	Con 21R	6-4 1/2 x 4 3/4	428.4	45.9	100-2200	L	C	A	2 3/4	13 1/2	7	PC	Ha	Str	M	A-L	A-L	12	
13	Acme.....10X	194	Op	Op	23500	9600	B10.50/20	DB10.50/20	Con 15H	6-4 1/2 x 5 1/2	548.6	48.6	105-2000	L	C	A	3	13 1/2	7	PC	Pe	Str	M	A-L	A-L	13	
14	Am. LAF. Big. Ch. 16	6725	226	226	24000	10000	P 40x8	DP 40x8	Own	6-4 1/2 x 6	572.5	48.6	115-1600	L	C	B	3	10 1/2	4	PC	On	Zen	V	D-R	D-R	14	
15	Armleder.....61	Op	199	1920	6700	P 36x8	DP 36x8	Her WXC2	6-4 1/2 x 4 3/4	360	40.8	80-2200	L	C	A	3	13 1/2	7	FP	Ha	Zen	V	A-L	A-L	15		
16	Atterbury.....100	223	227	227	28000	9100	B10.50/20	DB10.50/20	Con 21R	6-4 1/2 x 4 3/4	428.4	45.9	101-2400	H C	C	C	2 3/4	14 1/2	7	FP	Ha	Zen	V	A-L	A-L	16	
17	Autocar 3 1/2 & 5 T. C	5500	172	186	26000	9705	P 42x9	DP 42x9	Own	6-4 1/2 x 4 3/4	453.8	48.6	101-2400	L	C	C	3	14 1/2	7	FP	Pe	Str	V	D-R	D-R	17	
18	Autocar.....TFA	6100	192	242	26000	9430	P 38x9	DP 38x9	Own	6-4 1/2 x 4 3/4	453.8	48.6	101-2400	L	C	C	3	14 1/2	7	FP	Pe	Str	V	D-R	D-R	18	
19	Available.....T-50	Op	Op	Op	22000	9300	B 9.75/20	DB 9.75/20	Wau 6RB	6-5 x 5 1/2	677.4	60.0	125-2000	L	C	C	3 1/2	11 1/2	4	PC	Wa	Zen	V	D-R	D-R	19	
20	Brookway.....4-5T-220	170	224	224	22000	8400	P 40x8	DP 40x8	Con	6-4 1/2 x 4 3/4	427.5	45.9	100-2400	H C	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	M	A-L	A-L	20	
21	Clinton.....120L	5500	204	Op	27050	9550	P 36x6	DS40x7	Bud BTU	4-5 x 6 1/2	510.5	40.0	61-1400	L	C	C	2 3/4	12 1/2	3	PC	Bu	Zen	V	Spl	A-Bo	21	
22	Clinton.....120L	5500	204	Op	27150	9650	S 36x6	DS40x7	Bud BTU	4-5 x 6 1/2	510.5	40.0	61-1400	L	C	C	2 3/4	12 1/2	3	PC	Bu	Zen	V	Spl	A-Bo	22	
23	Coleman X-100 5-6 T.	144	184	24300	11200	P 42x9	P 42x9	Bud BA6	6-4 1/2 x 5 1/2	411	40.8	105-2200	L	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	V	D-R	D-R	23		
24	Coleman X-100F 5-7 1/2	144	184	24300	11200	P 42x9	P 42x9	Bud BA6	6-4 1/2 x 5 1/2	411	40.8	105-2200	L	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	V	D-R	D-R	24		
25	Commerce.....100	58	175	192	23500	9600	S 36x6	S 40x14	Bud BA6	6-4 1/2 x 5 1/2	411	40.8	83-2100	L	C	C	2 3/4	9 1/2	4	PC	Bu	Zen	V	A-L	A-L	25	
26	Condor.....CHB	210	236	24000	10100	B 9.00/20	DB 9.00/20	Con 16H	6-4 1/2 x 4 3/4	611.4	54.1	127-2300	L	C	A	3	13 1/2	7	PC	Pe	No	Zen	M	A-L	A-L	26	
27	Condor.....CGW	157	240	28000	9500	B 9.00/20	DB 9.00/20	Con 21R	6-4 1/2 x 4 3/4	428.4	45.9	100-2200	H C	C	C	2 3/4	13 1/2	7	FP	No	Zen	M	A-L	A-L	27		
28	(Z) Corbitt.....24	191	30	24800	9200	P 38x9	DP 38x9	Con 20R	6-4 1/2 x 4 3/4	381	40.8	88-2400	H C	C	C	2 3/4	13 1/2	7	FP	No	Zen	V	D-R	D-R	28		
29	Day Elder.....240	4295	162	202	24000	9500	P 38x9	DP 38x9	Con 21R	6-4 1/2 x 4 3/4	427.5	45.9	100-2600	H C	C	N	2 3/4	13 1/2	7	FP	Co	Zen	V	D-R	D-R	29	
30	Diamond T.....750	4650	178	238	24000	9000	B 9.75/22	DB 9.75/22	Her WXC4	6-4 1/2 x 4 3/4	529.0	51.3	124-2200	L	C	C	3	13 1/2	7	FP	Ha	Zen	M	A-L	A-L	30	
31	Douglas.....F4	5500	185	Op	26000	9200	S 36x6	S 40x12	Bud BBU	6-4 1/2 x 5 1/2	510.5	40.8	81-1400	L	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	M	A-L	A-L	31	
32	Douglas.....F6	6300	196	Op	26000	9200	B 9.75/38	DB 9.75/38	Bud GL6	6-4 1/2 x 6	572.5	48.6	114-1900	L	C	C	3	10 1/2	4	PC	Bu	Zen	V	A-L	A-L	32	
33	Duplex.....M 5-7 Ton	7600	Op	Op	28000	10000	P 34x7	DS36x7	Bud GL6	6-4 1/2 x 6	572.5	48.6	105-2200	L	C	C	3	10 1/2	4	PC	Str	V	A-L	A-L	33		
34	Federal 4C6A 4-5 T.	4735	192	231	24000	8330	P 36x8	DP 36x8	Con 20R	6-4 1/2 x 4 3/4	381	40.8	90-2200	H C	C	C	2 3/4	13 1/2	7	FP	Co	Zen	M	D-R	D-R	34	
35	Federal 4C6AB 4-5 T.	4960	192	231	24000	8570	P 36x8	DP 36x8	Con 20R	6-4 1/2 x 4 3/4	381	40.8	90-2200	H C	C	C	2 3/4	13 1/2	7	FP	Co	Zen	M	D-R	D-R	35	
36	Fisher-Std.....100A	168	198	25000	8400	P 38x9	DP 38x9	Con 21R	6-4 1/2 x 4 3/4	427.5	45.9	102-2400	H C	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	V	D-R	D-R	36		
37	Fisher-Standard.....105A	168	198	25000	8400	P 38x9	DP 38x9	Con 21R	6-4 1/2 x 4 3/4	427.5	45.9	102-2400	H C	C	C	2 3/4	13 1/2	7	FP	Ha	Zen	V	D-R	D-R	37		
38	F.W.D.....M5	7600	165	Op	24800	11800	B12.75/20	B 12.75/20	Wau SRL	6-4 1/2 x 5 1/2	462	45.9	102-2200	L	C	C	3	13 1/2	7	FP	Wa	Zen	M	N-E	N-E	38	
39	Garford.....100	5830	175	192	23500	9600	S 36x6	S 40x14	Bud BA6	6-4 1/2 x 5 1/2	411	40.8	83-2100	L	C	C	2 3/4	9 1/2	4	PC	Bu	Zen	V	A-L	A-L	39	
40	(X) Gen. Mot.....T51	2565	155	200	19000	5955	P 34x7	DP 34x7	Own 331	6-3 1/2 x 5	331.4	33.7	94-2500	H C	C	2 3/4	8 1/2	4	PC	Ha	Mar	M	D-R	D-R	40		
41	(X) Gen. Mot.....T55	2690	155	200	19000	6095	P 34x7	DP 34x7	Own 331	6-3 1/2 x 5	331.4	33.7	94-2500	H C	C	2 3/4	8 1/2	4	PC	Ha	Mar	M	D-R	D-R	41		
42	(X) Gen. Mot.....T60	3160	154	200	22000	7060	P 36x6	DP 36x8	Bulck	6-3 1/2 x 5	331.4	33.7	94-2500	H C	C	2 3/4	8 1/2	4	PC	Ha	Mar	M	D-R	D-R	42		
43	(X) Gen. Mot.....T61	3445	154	200	22000	6965	B 9.00/20	DB 9.00/20	Own 331	6-3 1/2 x 5	331.4	33.7	94-2500	H C	C	2 3/4	8 1/2	4	PC	Ha	Mar	M	D-R	D-R	43		
44	(X) Gen. Mot.....T62	3445	155																								

Line Number	Radiator Make	Type and Make	Clutch	Gear Set			Universal Make and No.	Make and Model	Rear Axle			Front Axle			Brakes		Frame		Body Mounting Data		Springs			Line Number				
				Location	No. of Forward Speeds	Aux. Locat. and Speeds			Final Drive and Type	Drive and Torque	Gear Ratios	Make and Model	Make and Model	Service	Area Service Brakes	Hand	Steering Gear Make	Dim. Side Rail	Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front		Rear	Auxiliary Type		
1	Per	D.B-L	B-L 55	U	4	No	Spl	Tim 65720H	WF	R 7.25	38.8	Tim 35000H	L4IHV	768	CD	Ros	7x2 1/2 x 1 1/4	P	Var	76	32	41x2 1/2	54x3	1 1/2	1			
2	Chl	D.B-L	B-L 55	U	4	No	Spl	Tim 65720H	WF	R 6.8	38.8	Tim 35000H	L4IHV	768	CD	Ros	7x2 1/2 x 1 1/4	P	Opt	76	32	41x2 1/2	54x3	1 1/2	2			
3	Mod	DP.Lon	B-L 615	U	4	No	Blo 5	Tim 75720 H	2F	R 7.8	50.7	Tim 35000 H	L4IHV	660	TD	Ros	8x3x 1/4	T	Opt	Opt	Opt	33 1/2	41 1/2 x 2 1/2	53x3	1 1/2	3		
4	Mod	DP.Lon	B-L 615	U	4	No	Spl 3	Tim 58200H	WF	R 7.8	50.7	Tim 35000 H	L4IHV	660	TD	Ros	8x3x 1/4	T	Opt	Opt	Opt	33 1/2	41 1/2 x 2 1/2	56x3	1 1/2	4		
4 1/2 Ton Cont'd																												
5	McC	D.B-L	B-L 60-7	A	7	No	Spl	Tim 66720dh	W/2	R 9.5	90.2	Tim 26450H	L4IH	...	FD	Ros	8x3 1/2 x 1 1/4	C	Opt	Opt	Opt	32 1/2	40x2 1/2	54x4	1 1/2	5		
6	Per	D.B-L	B-L 55	A	4	No	Spl	Tim 66720DH	W-F	R 9.0	85.5	Tim 16702H	L4IH	...	TD	Ros	8x3 1/2 x 1 1/4	C	Opt	Opt	Opt	34	40x2 1/2	56x3 1/2	1 1/2	6		
7	Lon	P.B-L	B-L 314	A	4	No	Pet 3	Tim 58200 H	SE	R 6.13	40.5	Tim 33020 H	L4IH	659	...	Ros	9 1/2 x 3 1/2 x 1 1/4	C	...	156	101	34	40x2 1/2	54x3	1 1/2	7		
8	Lon	P.B-L	B-L 51-4	A	4	No	Pet 3	Tim 58200 H	SE	R 6.13	32.9	Tim 33020 H	L4IH	659	...	Ros	9 1/2 x 3 1/2 x 1 1/4	C	...	156	99 3/4	34	41 1/2 x 2 1/2	54x3	1 1/2	8		
9	You	D.Ful	Ful MG U	A	4	No	...	Wis 8537AL	2F	R 8.00	52.0	Tim 35000H	L4IHV	893	TD	Ros	7x3 1/2 x 1 1/4	P	P	Opt	Opt	Opt	31 1/2	40x2 1/2	50x3	1 1/2	9	
10	You	D.Ful	Ful MG U	A	4	No	...	Own	2F	R 8.00	52.0	Shu 5572	L4IHV	893	TD	Ros	8 1/2 x 3 1/2 x 1 1/4	P	P	Opt	Opt	Opt	31 1/2	40x2 1/2	50x3	1 1/2	10	
11	Own	P.B-L	B-L 615	A	4	Opt	Spl	Tim	WF	R 10.0	52.0	Shu 615	T2IMV	...	TX	Ros	7x3 1/2 x 1 1/4	C	C	Opt	Opt	Opt	33 1/2	40x2 1/2	56x3 1/2	1 1/2	11	
5 Ton																												
12	Per	B-L	B-L 60-7	A	7	No	Spl	Tim 66720DH	WF	R 9.0	85.5	Tim 26050H	L4ID	876	TD	Ros	9x3 1/2 x 1 1/4	P	168	108 1/2	34	44x3	54x3 1/2	1 1/2	12			
13	Per	B-L	B-L 60-7	A	7	No	Spl	Tim 66720H	WF	R 9.0	85.5	Tim 26050H	L4IHV	921	TD	Ros	9x3 1/2 x 1 1/4	P	168	105 3/4	34	44x3	54x3 1/2	1 1/2	13			
14	Own	P.B-L	B-L 60	A	7	No	Own	Tim 16R	2F	R 8.13	38.9	Own 16R	O4IA	793	TX	Own	9 1/2 x 2 1/2 x 1 1/4	C	Opt	Opt	Opt	31 1/2	44x3	56x3 1/2	1 1/2	14		
15	Own	D.Ful	Ful MG U	A	4	No	Spl	Tim 66720H	WF	R 9.0	85.5	Tim 26450H	L4IHV	864	...	Ros	9x3 1/2 x 1 1/4	C	Opt	Opt	Opt	221	133	34	40x3	56x4	1 1/2	15
16	Per	D.B-L	B-L 55-7	A	7	No	Spl	Tim 66720DH	W-F	R 9.0	85.5	Tim 26450H	L4IHV	864	...	Ros	9x3 1/2 x 1 1/4	C	Opt	Opt	Opt	221	133	34	40x3	56x4	1 1/2	16
17	Own	dp.Lon	Own B	A	4	Op	Spl	Own C	2F	R 8.57	52.5	Own CL	O2IM	502	TD	Ros	9x3x 1/4	C	158 1/2	88 1/2	34 1/2	42 1/2 x 3	54 1/2 x 4	1 1/2	17			
18	Own	dp.Lon	Own T	A	12	A3	Spl	Own TF	2F	R 7.20	103	Tim 26450	LO4ID	602	TD	Ros	9x3x 1/4	C	175 1/2	105	34 1/2	42 1/2 x 3	54 1/2 x 4	1 1/2	18			
19	You	D.B-L	B-L 70	A	7	No	Blo	Tim 66704W	WF	R 9 1/2	90.0	Shu 638	B4IA	441	FD	Ros	8x2 1/2 x 1 1/4	P	Opt	Opt	Opt	36	42x3	52x3 1/2	1 1/2	19		
20	G&O	D.B-L	B-L	A	4	No	Spl 3	Wis	2F	R 6.96	50.7	Shu	L4IHV	546	CD	Ros	8 1/2 x 3 x 1 1/4	T	142	84	34	40x2 1/2	54x3	1 1/2	20			
21	Own	D.B-L	B-L 60	A	7	No	Blo	Tim 68702DHP	WF	R 8.80	47.1	Tim 17300	T2IH	288	RI	Ros	10x3 1/2 x 1 1/4	T	Opt	Opt	Opt	38	43 1/2 x 3	55 1/2 x 4	1 1/2	21		
22	Own	D.B-L	B-L 60 Max	A	7	No	Blo	Tim 68702DHP	WF	R 8.80	47.1	Tim 17300	T2IH	288	RI	Ros	10x3 1/2 x 1 1/4	T	Opt	Opt	Opt	38	43 1/2 x 3	55 1/2 x 4	1 1/2	22		
23	R-T	D.Ful	Ful R U16	A	8	A2	Spl	Wis 122	2F	R 8.54	140	Wis 122F	W2/4IM	...	TD	Ros	14x2 1/2 x 1 1/4	C	168	105	30	48x3 1/2	52x3 1/2	1 1/2	23			
24	Per	D.Ful	Ful H U 16	A	8	A2	Spl	Wis 122	2F	R 8.54	140	Wis 122F	W2/4IM	...	TD	Ros	14x2 1/2 x 1 1/4	C	168	105	30	48x3 1/2	52x3 1/2	1 1/2	24			
25	Lon	D.Own	B-L 60 Max	A	7	No	Blo	Tim 68700DP	WF	R 10.1	95.0	Tim 16302	W2IMV	...	TD	Ros	14x2 1/2 x 1 1/4	C	144	94 1/2	34	44x3	50x4	1 1/2	25			
26	Per	D.Ful	Ful H U 16	A	4	No	Blo	Wis 12527KW	2F	R 10.0	25.2	Tim 1660	4IA	...	FD	Ros	8 1/2 x 3 1/2 x 1 1/4	C	198 1/2	141 1/2	41 1/2	44x3	50x4	1 1/2	26			
27	Per	D.Own	B-L 60	A	4	No	Blo	Wis 1627K	2F	R 6.3	41	Tim 27450	L4IHV	864	FD	Ros	7 1/2 x 3 x 1 1/4	C	128 1/2	73	36	40x3	58x3 1/2	1 1/2	27			
28	Per	D.B-L	B-L 60	A	7	No	Spl 4	Tim 66704DH	W/F	R 10.2	97.4	Tim 26450H	L4IHV	695	TD	Ros	8x2 1/2 x 1 1/4	P	172	109	34	46x3	60x3 1/2	1 1/2	28			
29	Per	D.B-L	B-L 60	A	7	No	Blo	Tim 66704DH	W/F	R 10.2	97.4	Tim 26450H	L4IHV	695	TD	Ros	8x2 1/2 x 1 1/4	P	172	109	34	46x3	60x3 1/2	1 1/2	29			
30	G&O	D.Cov	Cov	A	5	No	Sp 4	Wis 1627KW	2F	R 10.3	64.4	Shu 678	W4I	552	TD	Ros	7 1/2 x 3 1/2 x 1 1/4	P	138	89 1/2	34	46x3	56x3 1/2	1 1/2	30			
31	Own	D.Ful	Ful HU 18	A	4	Opt	Blo 5	Wis 1458	2F	R 9.12	57	Shu 615	W2IMV	503	CX	Ros	10x2 1/2 x 1 1/4	T	216	130	36	45x3	54x4	1 1/2	31			
32	Own	D.Ful	Ful HU 18	A	4	Opt	Blo 5	Wis 1567	2F	R 10.3	64.4	Shu 650	W2IMV	538	CX	Ros	10x2 1/2 x 1 1/4	T	156	108	36	48x3	54x4	1 1/2	32			
33	Mod	D.B-L	B-L 70	A	7	No	Cle	Tim 68700	R	R 10.0	95.0	Shu	T2IA	...	TD	Ros	9 1/2 x 3 1/2 x 1 1/4	C	180	107 1/2	34	42x2 1/2	54x3	1 1/2	33			
34	Lon	P.B&B	B-L 60	A	7	No	P-8 4	Tim 66704HP	W/F	R 7.6	72.2	Own	L4IHV	894	RI	Ros	7 1/2 x 3 1/2 x 1 1/4	C	180	107 1/2	34	42x2 1/2	54x3	1 1/2	34			
35	Per	D.B-L	B-L 60	A	7	No	Spl 3	Tim 66704WP	W/F	R 7.6	72.2	Own	L4IA	921	RI	Ros	7 1/2 x 3 1/2 x 1 1/4	C	180	107 1/2	34	42x2 1/2	54x3	1 1/2	35			
36	Per	D.Ful	Ful V UOG	A	5	No	Spl 3	Wis 1237-H	2F	R 7.2	51.0	Tim 35020 H	L4IHV	768	FD	Han	8x3x 1/4	C	133	85 1/2	32	39x2 1/2	60x3 1/2	1 1/2	36			
37	Lon	B-L	B-L 60	A	7	No	Spl 5	Tim 66720W	FF	R 8.2	77.9	Tim 35100T	W4IA	768	CD	Ros	8x2 1/2 x 1 1/4	C	144	94	38	46x3	54x4	1 1/2	37			
38	Lon	B-L	B-L 60	A	7	No	Spl 5	Tim 68720TW	FF	R 8.75	83.1	Tim 27450T	W4IA	820	CD	Ros	8x2 1/2 x 1 1/4	C	144	94	38	46x3	54x4	1 1/2	38			
39	Per	D.B-L	B-L 714	A	8	Op	Blo	Wis	2F	R 10.0	207.2	Wis	B4IMV	528	T4	Ros	8x3 1/4	C	153 1/2	110 1/2	34	48 3/4	52x4	1 1/2	39			
40	Lon	D.Own	B-L 60 Max	A	7	No	Blo	Tim 68700DP	WF	R 10.1	95.0	Tim 16302	B4IMV	574	TX	Ros	9x3 1/2 x 1 1/4	P	125	70	34	40x3	50x3	1 1/2	40			
41	Lon	D.Own	Own	A	4	No	Spl	Own	2F	R 6.57	40.6	Own	B4IMV	574	TX	Ros	9x3 1/2 x 1 1/4	P	125	70	34	40x3	50x3	1 1/2	41			
42	Lon	D.Own	Own	A	4	No	Spl	Own	2F	R 6.57	40.6	Own	B4IMV	574	TX	Ros	9x3 1/2 x 1 1/4	P	125	70	34	40x3	50x3	1 1/2	42			
43	Lon	D.Own	Own	A	4	No	Spl	Own</																				

Line Number	Make, Model and Capacity	General		Tire Size		Make and Model	Number of Cylinders Bore and Stroke	Engine		Fuel System	Electrical System	Line Number													
		Chassis Price	Gross Vehicle Wt. (See Key Note)	Front	Rear			Platton Displacement	N.A.C.C. Rated H.P.				Max. Brake H.P. at Specified R.P.M.	Valve Arrangement											
5 1/2 Ton and More—Cont'd																									
1	Hahn & Selden 77 5-7	182	224	27800	10000	P 40x8	DP40x8	Con	6-4 1/2 x 5 1/2	611.4	45.9	127-2300	H	C	A	3	13 1/2	7	CC	Pe	Str	M	A-L	1	
2	Indiana 5 1/2-7 1/2 T 250	182	224	25000	10000	P 38x7	S 40x14	Con	6-4 1/2 x 5 1/2	611.4	45.9	100-2400	H	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	2	
3	Indiana 7 1/2-10T 290	182	224	30000	10750	P 38x9	DP38x9	Wau 6AB	6-4 1/2 x 5 1/2	549.0	48.6	116-1800	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	3	
4	La Fran.-Republic 35-2	174	198	24000	9250	P 38x9	DP38x9	Wau 6AB	6-4 1/2 x 5 1/2	549.0	48.6	98-1850	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	4	
5	Mack AC	5500	156	240		P 36x6	DS40x6	Own AC	6-4 1/2 x 5 1/2	471.2	40.0	77-1800	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	5	
6	Mack AC	6550	174	240		P 36x6	DS40x6	Own BK	6-4 1/2 x 5 1/2	525.5	48.6	126-2200	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	6	
7	Mack AC	6000	156	240		P 36x7	DS40x7	Own AC	6-4 1/2 x 5 1/2	471.2	40.0	77-1800	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	7	
8	Mack AP	9500	191	191		P 36x7	DS40x8	Own AP	6-4 1/2 x 5 1/2	525.5	48.6	150-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	8	
9	Moreland	H7	5200	196	22000	8000	P 36x8	DP36x8	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	94-2200	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	9
10	Netco	K	6500	180	32000	11000	B 10.50/40	DB10.50/40	Lyc AEC	6-4 1/2 x 5 1/2	420.0	45.9	140-2800	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	10
11	Pierce-Arrow	PZ	168	204	34000	12800	P 36x7	DS40x8	Own	6-4 1/2 x 5 1/2	611.4	45.9	130-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	11
12	Relay 100B 7 1/2 Ton	6900	220	29200	11200	B 9.75/24	DB9.75/24	Buda GF6	6-4 1/2 x 5 1/2	638.5	54.1	118-1850	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	12	
13	Schacht 40HA	154	235		8100	B 9.75/24	DB9.75/24	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	93-2200	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	13	
14	Schacht 40HB	154	235		8150	B 10.50/20	DB10.50/20	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	93-2200	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	14	
15	Schacht 66H	152	247		10300	B 10.50/20	DB10.50/20	Her YXC	6-4 1/2 x 5 1/2	528.0	51.2	115-2200	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	15	
16	Schacht 66HA	152	247		10350	B 10.50/24	DB10.50/24	Her YXC	6-4 1/2 x 5 1/2	528.0	51.2	115-2200	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	16	
17	Service 1002B 5830	175			9600	S 40x14	Bud BA6	6-4 1/2 x 5 1/2	410.9	40.8	83-2100	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	17		
18	Standard 5-7	165	180		8700	S 40x14	Con B5	6-4 1/2 x 5 1/2	425.3	36.1														18	
19	Sterling FW140, FD140	192	222		10050	P 40x8	DP42x9	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	19	
20	Sterling FC135	192	222		8755	P 40x8	DP40x8	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	102-2400	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	20	
21	Sterling FC146 7 1/2	200	230		9055	P 40x8	DP40x8	Wau HB	6-4 1/2 x 5 1/2	489.0	43.4	90-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	21	
22	Sterling FC145 6 1/2	200	230		9555	P 40x8	DP40x8	Wau AB	6-4 1/2 x 5 1/2	549.0	48.6	99-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	22	
23	Sterling FC170 7 1/2	200	230		10500	P 40x8	DP44x10	Wau AB	6-4 1/2 x 5 1/2	549.0	48.6	99-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	23	
24	Sterling FC170 7 1/2	200	230		10255	P 40x8	DP44x9	Wau RB	6-4 1/2 x 5 1/2	677.0	60.0	125-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	24	
25	Stewart 27X 7 Ton	5700	165	235	10040	P 36x7	P 40x7	Wau 6SRK	6-4 1/2 x 5 1/2	516.5	51.2	105-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	25	
26	Walter FHR 7 1/2 T	5000	Op	Op	136	31000	B 10.50/2	DB10.50/2	Own 6	6-4 1/2 x 5 1/2	549.0	48.6	110-1800	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	26
27	Ward La France 50D-7	Op	Op	Op	28000		P 40x8	DP40x8	Wau SRL	6-4 1/2 x 5 1/2	462.5	45.9	97-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	27
28	Ward-La France 55B6	Op	Op	Op	28000		P 40x8	DP40x8	Wau RB	6-4 1/2 x 5 1/2	677.0	60.0	125-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	28
29	Ward-La Fr. 75RW 7 1/2	Op	Op	Op	28000		B 10.50/20	DB10.50/20	Wau RB	6-4 1/2 x 5 1/2	677.0	60.0	125-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	29
30	Ward-La Fr. 100RW 10	Op	Op	Op	34000		B 10.50/24	DB10.50/24	Wau RB	6-4 1/2 x 5 1/2	677.0	60.0	125-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	30
31	White 52	5100	174	215	28000	9409	S 36x6	S 40x12	Own GRB	6-4 1/2 x 5 1/2	326.3	28.9	54-1600	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	31
32	Witt-Will R55	5700	159		27000	9500	B 10.50/20	DB10.50/20	Con 21R	6-4 1/2 x 5 1/2	427.5	45.9	100-2600	H	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	32
33	Woods 105	6975	190	Op	8700	B 10.50/22	DB10.50/22	Her HXC	6-4 1/2 x 5 1/2	770.0	66.1	164-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	33	
Six-Wheelers																									
34	Autocar G 10T	9000	171	238	36000	13000	P 36x8	DP36x8	Own	6-4 1/2 x 5 1/2	453.0	48.6	101-2400	L	C	A	3	14 1/2	7	FP	Pe	Str	V	D-R	34
35	Brookway 640, 10 Ton	212	224	40000	14000	P 38x7	S 36x10	Con	6-4 1/2 x 5 1/2	611.4	45.9	116-1800	L	C	A	3	13 1/2	7	FP	Pe	Str	E	L-N	35	
36	Chicago 1-56-D	174	222	35740	12740	B 9.75/20	DB9.75/20	Wau 6SRL	6-4 1/2 x 5 1/2	462.5	45.9	97-2000	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	36	
37	Corbitt 20SW6	Op	Op	22000	9000	B 7.50/20	DB7.50/20	Con 20R	6-4 1/2 x 5 1/2	411.0	40.0	89-2400	H	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	37	
38	Corbitt 28SW6	Op	Op	30000	10000	P 34x7	DP34x7	Con 21R	6-4 1/2 x 5 1/2	427.5	45.9	100-2600	H	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	38	
39	Corbitt 36SW6	Op	Op	38000	11500	P 36x8	DP36x8	Con 21R	6-4 1/2 x 5 1/2	427.5	45.9	100-2600	H	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	39	
40	Corbitt 40SW6	Op	Op	42000	13000	P 38x9	DP38x9	Con 16H	6-4 1/2 x 5 1/2	670.5	51.2	127-2300	H	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	40	
41	Day Elder 285 8 Ton	5285	164	204	28500	12000	B 8.25/20	DB8.25/20	Con 21R	6-4 1/2 x 5 1/2	427.5	45.9	100-2600	H	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	41
42	Day Elder 345 10 Ton	6395	164	204	34500	12500	B 9.00/20	DB9.00/20	Con 21R	6-4 1/2 x 5 1/2	427.5	45.9	100-2600	H	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	42
43	Day Elder 402 12 Ton	7495	164	204	40200	14200	B 9.75/20	DB9.75/20	Con 16-H	6-4 1/2 x 5 1/2	611.4	45.9	127-2300	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	43
44	Diamond T. 801 4T	4140	189	219	21000	8000	P 36x8	P 36x8	Her YXC	6-4 1/2 x 5 1/2	428.4	45.9	94-2200	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	44
45	Diamond T. 1200 6T	5600	180	210	28000	11000	P 34x7	DP34x7	Her YXC-2	6-4 1/2 x 5 1/2	453.0	48.6	100-2200	L	C	A	3	13 1/2	7	FP	Pe	Str	M	A-L	45
46	Diamond T. 1601 8T	7500	184	224	36000	13000	P 36x8	DP36x8	Wau 6RB	6-4 1/2 x 5 1/2	677.0														

